# THE BRICKBUILDER

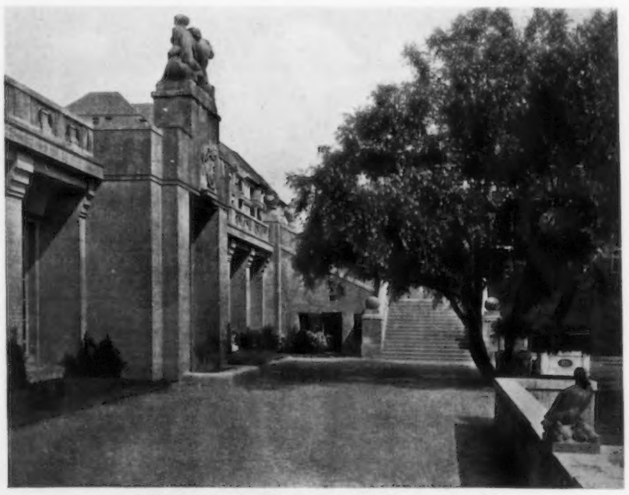
VOLUME XXIV SEPTEMBER, 1915 NUMBER 9


## Modern German Architecture.*

PART I.

*By* IRVING K. POND.

DID I not believe that in modern German architecture there lies more than a hint of helpful suggestion for us here in America, where we are just beginning "to find ourselves" in the arts; and did I not believe that underneath our powers of mimicry and our demonstrated capacity for adaptation there lie deep wellsprings of idealism and fonts of real power and feeling which may be brought to the surface to the healing and enrichment of ourselves individually and communally — did I not believe this, I should neither care nor dare to write of German architecture at the present time. One thing must be borne in upon us as we study any markedly characteristic phase of a great national expression: that we can have no great art, no art in any sense, until we have a conscious definite idealism and a conscious will and power to give that idealism expression in the work of our hand and brain. All the activities of life are avenues of self-expression. Art directs endeavor into paths of consistent order, harmony, and unity, that is, into paths of beauty. We are bound whether or no to express ourselves; we are not bound, except morally, to express ourselves consistently, and in so doing achieve art. We are morally bound to express the best that is in us for the delectation and advancement of the individual and the race, and we are morally bound to repress that within us which cannot beneficially affect our fellows. What will so affect our fellows is a matter for conscious and serious study.



A Bridge in the Shoneberg City Park at Berlin
Emil Schaudt, Architect

Of all the arts — of all art — architecture is the highest and most potent medium of self-expression — the most polished mirror for self-reflection. On the surface of architecture may readily be seen what lies deep in the race which produces it. Whether they will or no, architecture for those who practise it and for the public which tolerates it is a subtle and ruthless agency for self-revelation. That those most deeply concerned do not always define clearly the image which stands revealed does not change the facts. It means that an interpreter is needed. In our own imitations and adaptations can we not read the general inability or fearfulness of our people individually and collectively to act firmly and as a unit in moral crises — read the dread of the unpleasantness which must accompany the meeting of a moral issue; or do we see only a careless or happy-go-lucky attitude towards such issues? Is a certain big simplicity which is apparent in our design as in no other to-day except may be here and there in the German and among the out-of-the-way Finns to the north — apparent in our national as also in the advanced as well as in the conventional phases of our individual architecture — to be taken as an expression of careless optimism, of an accepted or altogether acceptable belief that everything is all right anyway, or is it the as yet undefined conviction of the growing unity and mission of our country? It may be well for our philosophers to inquire into that manifestation of a bigness of spirit and conception which is appearing in our own architecture great or small; appearing in communal as in individual work and so indicating the carrying on of personality and individuality over into governmental activities and official expression. Our philosophers may be able to clarify the atmosphere and present to the inner vision of the artist real objects in their correct relationships; and then perhaps the artist may be able to present some definite, ennobling, soul-penetrating image to the outer vision of his fellows.

In spite of the bigness of conception which marks much of our architecture, — governmental, municipal, and domestic, — we find dominating in all three fields forms which

*NOTE. The illustrations accompanying these papers are reproduced from *Moderne Bauformen*, published in Stuttgart. I offer my sincere thanks to the publishers of that valuable journal. — *I. K. P.*

are not altogether expressive of our national and individual ideals, which do not denote us truly, which are more in the nature of affectation or pretense — forms expressive of Roman pomp and power rather than of the altruistic democracy of our own time and place. We should not be surprised to find these forms dominating German Imperial architecture. In that superimposed architecture we do find them, notably in the new Dom at Berlin; in the new library and museum.

House at Blasewitz
G. Hanichen and H. Tscharmann, Architects

But that architecture was superimposed and did not express the then will of the people. That expression is found in minor churches, in commercial, mercantile, and industrial structures, in domestic work and markedly in the schools and town halls — in all the avenues, in fact, in which the people were acting independent of bureaucracy. But is there something in the people which makes them, perhaps contrary to their better natures, effective tools in bureaucratic and Imperial hands? If so, we should expect to find that something in the art of so self-expressive a race as is the German; and we are not disappointed.

In the first place, to judge German art fairly, we must realize that Germany is expressing what is in her, not necessarily what is in us. She professes to think some of it is in us, but that our hypocrisy and our puritanism prevent us from obtruding it. Be that as it may, a certain childish frankness permits the German, in common with certain of his neighbors, to display in his art a primitive coarseness which we conceive to be vulgarity when not worse. This is notably so in the art of the illustrator and not wanting in the art of the sculptor. There is refinement too in both these as in the other arts. The fact that both elements appear is clearly indicative that German art is the expression of the German self. From that standpoint we must view it. There is red blood coursing through the German veins. It flows from primitive sources charged with primitive passions, and is not so attenuated as to appear blue of itself or by reflection. Did the Bismarck monument at Hamburg or the commemorative pile at Leipsic come from a race unconscious of its power, uncertain of its ambitions, or confused as to its designs? It was we, looking on from without, who did not understand the full meaning of these monuments. We were not wrong in seeing in the former monument an appreciation on the part of a united people of the strength and vigor of character in him who did so much to effect that unity. But we were far afield, some of us, who, in spite of the hints given out by certain of the militaristic moderns, saw in the great Leipsic pile only a monument to a fearsome past now dead. We seem in the light of recent events to see in these crude and brutal forms, wonderfully combined and unified as they are, a glorification of the spirit of war, an appeal to the lower instincts in man rather than to his higher nature. Others claim so always to have interpreted this monument; for my own part I had not. In spite of crudities and a certain coarseness which sometimes manifested itself, and which I attributed, and still in a measure do attribute, to the workings of a powerful spirit striving to give itself articulate expression, I saw the hopeful and helpful signs of a dawning social consciousness, of an industrial and social altruism, not to say democracy, which held a promise and an inspiration for some of us who were striving to find ourselves, and a warning and rebuke to many of us who were not so striving, but who were content to keep on with our dilettanteism and endless futile expressions of mental inertia. In spite of the attitude of military Germany, I cannot bring myself to believe that I entirely misinterpreted the expression, and the self-revelation of social, commercial, and civic Germany as presented in the characteristic forms of its modern architecture.

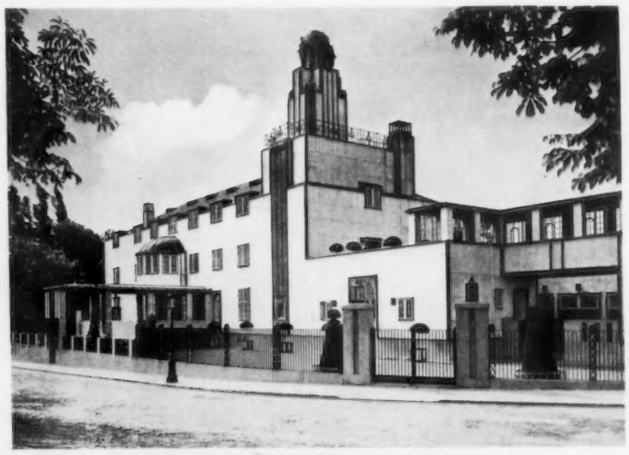
Apartment House at Munich
Max Neumann, Architect

In proceeding

with this sketch of modern German architecture I shall ignore the superimposed forms of Imperial expression which holds nothing of value for us except a warning, and confine myself to the architecture of the people. And I shall not dwell upon what I conceive to be the failures, for as I should like to be judged, if judged at all, by my best, I concede the same privilege to those whose work I am discussing. I shall frankly state wherein I feel that the expression falls short of the ideal and wherein it approaches; for I have an ideal and conceive that to labor without an ideal were worse than useless — it were vicious. I do not have to love and take to my bosom and make a part of myself an object or a form because I hold it in admiration; nor do I have to confine my admiration to matters which are merely part and parcel of myself. However, when I see another doing in his own manner and for himself what I feel that I should be doing in my own manner for my own self, a certain sympathy leads me to offer a meed of praise, and possibly it widens my powers of comprehension.

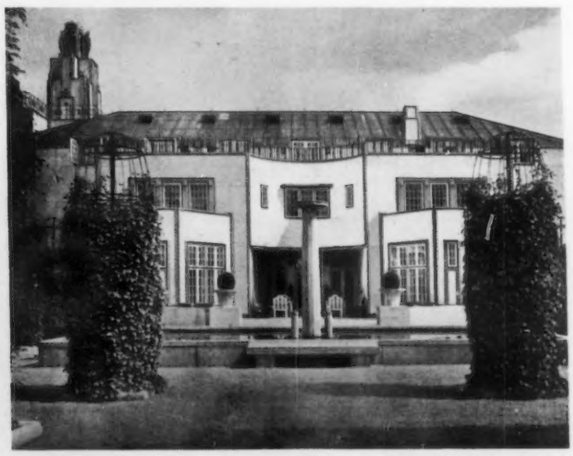
Modern German architecture is an awakening, not a Renaissance, and as an awakening it holds its lesson for us. It has been criticized because it employs classic forms without knowledge. I wonder from what pinnacle of knowledge the critics speak. It is criticized because it harks back to the Romanesque. Why should it not in principle so long as it does not misuse the forms? The Romanesque was a style welded into form in the white heat of dawning social consciousness and national unification. The Romanesque was an unsuccessful experiment with us, not because it was not right for us in principle, but because we could only handle it in terms of an alien and expired life. We, in other words, were impressed only with forms without and not by any sense of self-consciousness or self-need within. May not a clear vision of the content of modern Germanarchitecture help us here? We are great as a people, we acknowledge it, but did not natural resources and a peculiar environment make us so? When we will to be great and achieve greatness consciously our attitude towards art will experience a change. Comparisons are odious, and likenesses irritate and annoy, yet despite the latter I must say that for all our sophistication

Interior — The "Stoclethaus" at Brussels



View from Street — The "Stoclethaus" at Brussels

View from Garden



Detail of Garden Facade

The "Stoclethaus" at Brussels
Josef Hoffmann, Architect

in some matters we are, so far as concerns art, a primitive people, and I doubt if we are ever to attain to any real self-expression by continually bedecking ourselves in the garbs of other, even though great civilizations. To be ourselves we may have to come out naked and make mistakes and sometimes make ourselves hideous as the Germans did. Whether or no one likes the garb the Germans have woven for themselves, he must acknowledge the skill of the craftsmen who fabricated it. And this brings me to the other and more technical side of the subject.

Villa on the "Hohen Warte" at Vienna
Josef Hoffmann, Architect

The people of the United States were introduced to German architecture, more especially as affecting interiors of various classes, at the exposition in St. Louis in 1904. There and then our eyes were first opened to the beauty and perfection of German craftsmanship as well as to the freshness and virility of modern German design. It devolved upon me, as it happened, to write of that particular exhibit at that time for an architectural magazine,* and if I spoke then with appreciation bordering on enthusiasm, I have had no valid reason to modify that attitude since. I did not then and do not now urge an adoption of the style in this country; but I did then and do now urge an analysis of the spirit. While we have no reason to employ the forms except in those rare instances in which they naturally function and respond to a real call, I do urge on our part a careful study of their use and application in their native environment. Only so shall we perceive their real merit and recognize their suggestive value to us in the solution of our own problem.

*Architectural Record*, February, 1905.

Town Hall at Rudolstadt
Theodor Veil and Gerhard Herms, Architects

# The Use of Native Woods for Interior Finish.

PART I.

Introductory.

*By* C. MATLACK PRICE.

WHAT kind of wood shall we use for interior trim? This is a question which should not be difficult to answer in a country which possesses as many suitable and beautiful native woods as this country. The question resolves itself rather into one of suitability, into consideration of the finish which is desired. That locality should govern choice is not necessary on account of generally direct shipping facilities and the fact that stock for the entire interior finish of the average house would not make more than one car load.

Generally speaking, however, it is desirable to use local materials, both inside and out, for reasons either of economy or appropriateness, or both.

In taking up any subject so specific as wood there are necessarily encountered certain special terms used to designate various properties or peculiarities of woods, and it is obviously convenient, whether for information or reminder, to define these terms, giving in definition their accepted and general application.

*"Hard" and "Soft" Woods.* The timber of commerce has been placed in two broad and rather arbitrary divisions, — "hardwoods" and "softwoods." This division is rather a matter of convenience than a designation of the actual hardness or softness of the woods in the two divisions. Actual hardness or softness is established by obvious physical tests, by which it will be found that some woods listed in the "hardwood" class are softer than some woods listed in the "softwood" class. Commercially speaking, the pines, hemlocks, firs, cedars, cypresses, and spruces are called "softwoods." These may further be classed as "needleleaf" trees, while the "broadleaf" class embraces all other kinds, such as oaks, maples, birches, ash, gum, etc.

**Lobby, City Club, Chicago, Ill.**
Pond & Pond, Architects

Paneling and wainscot on piers is of cypress, stained a greenish gray and waxed. Ornament at upper part of piers is in various colors.

Both "hardwoods" and "softwoods" have certain characteristics and properties in common, certain facts of their growth and structure common to all trees and essential to recognize in any consideration of woods for finish.

*"Sapwood" and "Heartwood."* All lumber, whether "soft" or "hard," is made up of two kinds of wood, — "sapwood" and "heartwood." The former is the new, living wood of the tree, the portion bearing the sap, the outer portion of the trunk. The "heartwood" is the core of the tree, the old wood, in some species quite dead, and usually quite different in its nature from the "sapwood" of the same tree.

*Annual Rings.* The "sapwood" is of different depth in different kinds of trees, the inner layers gradually turning into "heartwood," as each year adds a new ring of wood around the tree. The yearly growth, which shows like a ring in the cross-section of a tree trunk, is called the "annual ring," and is composed of the two growths, — "springwood" and "summerwood," — of which the different colors make the ring. Trees enjoy two periods of growth each year: first in the spring, usually a quick growth, and later, a slower growth in the summer; and these two seasons give their names to the two kinds of wood in each annual ring.

The different proportions of spring and summer woods and the depth of the complete annual ring give a different appearance to different woods; but there are also other structural details in wood which determine what is often called its "grain."

*"Grain" and "Figure."* "Grain" in wood is a very indefinite term, meaning a great many different things to different users of wood. It may be used in speaking of appearance, or again in speaking of the physical properties of wood which are encountered by the mill man or the carpenter. What might better be called "figure," as in bird's-eye birch or maple, burl ash, or red gum, is often called "grain," and the figures apparent in quarter sawed oak, also wrongly called grain, are due to the presence in woods of narrow, light colored lines called "medullary rays."

*"Medullary Rays."* These are usually no wider than a pencil line, and in some woods are invisible. Most of the appearance and character differentiating one wood from another are due to the nature of the medullary rays. Oak is quarter sawed to expose the conspicuous flat sides of the rays, which in cross-section would show only their line-like ends. The variety in the prominence of these medullary rays makes some woods more adaptable to quarter-sawing than others, while the appearance of many woods is not aided at all in this way.

The consideration of "grain" recalls the old and once popular art of "graining" common woods with a paintbrush. This particular kind of artistic knavery enjoyed

high popularity in the days when brickwork was painted green, and cast-iron and wood were "sanded" to resemble stone. That was a period when the ideal of architecture was "to seem rather than to be," and though it is doubtful if a revival of such debased and debasing devices will ever occur, one is sometimes impelled (with due mental reservations) to admire the technical dexterity of some of the artisans of those times. Cheap and inferior woods were painted to resemble quarter sawed oak, and masters of the "art" were able even to effect actually deceptive imitations of such elaborate woods as mahogany and Circassian walnut. The immorality of all such deception is fortunately recognized to-day, and the growth of appreciation of the intrinsic beauty of materials put a stop to the activities of the expert "graining" painters, and public as well as architects began to demand the natural beauty of the actual wood, revealed by a transparent stain instead of concealed under some masquerade of paint. It is apparent, then, that distinction between "grain" and "figure" is important, as well as acquaintance with what produces them. One does not hear of quarter sawed cedar or white pine, because the medullary rays in these woods are too fine to contribute in any degree to the appearance or character of the woods.

The lumber trade is concerned in general with the comparative *weights* and *strengths* of different woods, but these properties need form no part of a consideration of woods used for interior finish. More important properties are the ease with which a given wood may be worked, its appearance in doors or paneling, its cost, and the finishes which it is best adapted to take.

Before taking up individually those native woods best adapted for use as interior finish, there should be recognized also the importance of "seasoning," what makes it necessary, and to what extent "seasoned" wood may be relied on.

*"Seasoned" Timber.* All "green" or standing timber contains more or less water, and "seasoned" lumber is lumber from which, to greater or less extent, the water has been expelled. Water begins to dry out of any lumber as soon as that lumber is exposed to the air, and the longer the exposure the more water leaves the wood. No mere exposure in ordinary temperatures, however, will drive out enough moisture from lumber to fit it for finished carpentry.

To further season lumber there is the dry kiln, the dry heat of which expels more water from the wood, though not all. A little more may be dried out in the greater heat of an oven, but a point is reached where no more moisture can be expelled without reducing the wood to a substance resembling charcoal, no longer wood. It will therefore be seen that the term "thoroughly kiln dried" can only be taken in a comparative way, since it is not possible to drive out *all* moisture from wood without destroying the wood.

There can be no fixed rules governing the length of time required to kiln-dry lumber, because much depends upon the conditions of the lumber before going to the kiln. Perhaps it has been air dried for some time before shipment to the kiln, or perhaps it is fresh cut. Obviously it is best to dry wood gradually and slowly, first in dry air, then in the kiln. No lumber is placed in a dry kiln until it has been air dried at least six months, and experienced users of lumber allow the wood to "come back" to normal temperature conditions by allowing it to stand in a dry shed ten days after it has been taken from the kiln before putting it in work.

*Warping and Checking.* That wood tends to warp or curl in the process of seasoning is the natural result of its cellular structure, and care is therefore taken in seasoning, whether by air or kiln, that the wood is uniformly exposed to temperature changes on all sides. The dry cells in wood, those from which the moisture has been drawn, naturally contract while the cells containing moisture remain as they are, so that a board will curl or warp forward the side which dries more rapidly. Since *all* the moisture in wood cannot be expelled, even in "thoroughly seasoned" stock, even such stock may warp if exposed to dampness on one side, because the cells of that side gradually become refilled with new moisture. Wood so exposed, and not protected, will gradually but inevitably curl towards the dryer side.

Ordinarily dry wood, or "seasoned" wood, is stronger than green wood, but green or unseasoned wood, naturally, does not concern the architect, because it could not be used in finish, and would not take paint or stain. Every architect and builder should carefully study the seasoning of lumber, and should, if possible, visit mills and talk with experienced men who do the actual work — the kilnmen and others who have the wood under close personal observation from its arrival in the log, or squared, until it is turned out in seasoned lumber ready for use. It is then time to go into the study of wood preservatives, fillers, paints, stains, and varnishes, of which more later. The question of the decay of wood and its prevention is an interesting one, but is a consideration which does not enter into interior trim, which is not exposed to decaying or erosive agents.

"Checking" is unlike warping or twisting, but is also to be reckoned with in seasoning wood. Some woods are more likely to "check" than others, unless great care is exercised in the seasoning process, the "checking" taking the form of many small splits, or even large cracks, due to uneven drying.

*Wood Preservation.* Trouble experienced with woodwork is usually due to lack of care in protecting it before the final finishing coats are applied. Because all woods are porous, and when dry the pores are open to absorb moisture, unfinished doors or trim placed in a damp room quickly absorb the moisture in the air, which causes them to swell up. When the moisture in their surroundings is removed, when the building is heated and dried out, all the joined woodwork naturally tends to warp and open at the joints, and it is very difficult and expensive and sometimes impossible to repair the damage.

If the architect were not aware of the cause of the trouble, he might make a mental note that he would never use that kind of wood again, and his client would (with apparent justification) accuse him of ignorance of his business. Or the fault might lie with the client, who, impatient to move in, refused his architect the time necessary to set the woodwork in dry interiors.

To prevent such unfortunate adventures with woodwork, all interior trim, which is usually shipped from the mill "in the white," or natural condition, should immediately receive one coat of filler, shellac, or stain, as the

Curly Cypress Grain

Carved Cypress Panel

The carved panel above and those at either side show appearance of cypress when given the "Sugi" finish after the ancient Japanese manner of treating wood. This is accomplished by searing the surface with flame and then brushing out the charred parts which exposes the harder portions.

Natural Cypress Grain

case might require. Certainly doors should not be hung, or trim and paneling installed in a building where the plastering is still damp. All finish which is set against plaster, brick, or other backing should be "back painted" with at least one heavy coat of asphaltum stain, or lead and oil, to prevent absorption of moisture. Obviously, wood that is not back painted is protected only on one side, and neither the mill man nor the wood itself should be condemned if proper care is not taken in handling it when it arrives "on the job."

Careful architects insist, and embrace in their specifications, a clause to the effect that no wood trim shall be set or doors hung until heat has been turned on in the building.

The foregoing notes are offered in connection with the following articles on native woods for interior finish because they are applicable to all such woods, and because constant reference will be made to these several points.

Cypress Door and Dresser in the Dining Room of James A. Green, Architect, Greenwich, Conn.

An example of "Sugi" finish on cypress, the Japanese character of which has been accented by the decorative painting on the door and the pierced carving over the dresser.

The most important and widely used woods, by reason of their natural variety and their wide natural distribution, are the pines and the oaks. Of these there are twelve distinct species of soft pines, twenty-two hard pines, and fifty oaks.

Other woods to be considered are red cedar, and other cedars, the spruces, cypress, the firs, and redwood of the so-called softwoods; and of the so-called hardwoods, white ash, the maples, the birches, sycamore, chestnut, walnut, red gum, sap gum, tupelo, mesquite, basswood, cottonwood, and whitewood.

Of these, some are not obtainable in large quantities, and consequently are not very widely used. Architects, however, may add great local interest to a piece of work by employing some seldom used but suitable wood characteristic of a given locality, and should be thoroughly familiar with the properties and possibilities of all native woods.

## CYPRESS.

CYPRESS is given, botanically, as existing in two genera, or principal kinds, of which one has two species, or varieties, and the other six, as recognized by the United States Forest Service.

In discussing this or any other wood, in the light of its uses for interior finish, there are two distinct considerations to reckon with,—its inherent *physical properties* and its superficial *appearance*. Under the first head fall such properties as durability, workability, action under paints and stains; while under the second fall such characteristics as grain, figure, and general appearance when finished.

Cypress possesses certain reliable physical characteristics which adapt it naturally to use for interior trim and doors. It is worked easily, does not split or splinter, and

Chamber in the House of Wm. L. McKee, Esq., Bristol, R. I.
Kilham & Hopkins, Architects

This room shows the use of large cypress boards with a wide channel at the joints for the entire facing of the walls. They are finished with a dark stain and waxed. The mantel is decorated with strap-work.

forms a good base for paint, stain, oil, varnish, or enamel. Since the question of decay does not enter very seriously into the use of woods for interior finish, there is no occasion to speak of the peculiarly lasting qualities of cypress when exposed to the elements, though its well-known durability in this connection recommends it for use in kitchen trim, where the woodwork is often subjected to steam and other forms of moisture.

The slightness of its tendency to warp, or to shrink or swell, makes it a distinctly suitable wood for doors or paneling, and further suitability lies in its availability in large, clear widths, and is evidenced in its appearance, which is discussed presently.

Since there is little or no pitch in cypress, it forms an excellent base for the application of paint or enamel, while the interesting and decorative nature of its grain makes a transparent stain an even more popular method of finish.

The above notes briefly comprise the principal physical characteristics of cypress, which brings us to a consideration of its superficial appearance.

The natural wood varies in color from almost white, as found in cypress from Arkansas, Tennessee, and Missouri, to almost black, as found in southern Louisiana and Florida. The usual natural color is yellowish, with the sapwood considerably lighter in color than the heartwood, which is often of a rich orange color.

As a base for paint or enamel, cypress, being a close grained wood, does not require filling if the stock is in a properly dry condition.

The natural grain of cypress has a wide range and diverse beauty — is, in fact, singularly varied. The "edge" grain has a quiet simplicity, the "slash" grain a broad, sweeping freedom, while the "sugi" finish brings out strange and involved figuring, as rich as Oriental decoration.

The finishing of cypress is by no means difficult, as it takes stains readily, and its grain is thereby brought out to more striking advantage. A transparent stain, wiped off, is the nearest approach, of course, to the natural wood; while a penetrating stain colors it more deeply and produces a richer and more substantial effect. The wood may be stained in effects very closely approximating mahogany, cherry, black walnut, or any of the oaks, or the so-called "mission" tones — grays, browns, greens, or tans — for conformity with modern "art craft" color schemes.

A finish peculiar to cypress is the recently discovered "sugi" finish. The name is taken from a Japanese wood (which cypress closely resembles) and from which the Japanese have for years fashioned intricate panels which have been known as "Japanese driftwood." The effect of this Japanese wood, however, is not the result of long exposure to salt sea waves, but the result of a clever burning process. The winter growth and summer growth of Japanese sugi wood possess such relative hardness and softness that quick exposure to a flame chars the soft portion, leaving the harder portion untouched. The charred portion is then scored out with a wire brush and rubbed clean of any trace of the fire, causing the hard portions to stand out in a remarkably decorative manner. This treatment has been found to

Stairway in House at Locust Valley, L. I.
Grosvenor Atterbury, Architect

An interesting use of cypress for stair balustrade, paneling, and ceiling beams, in which the wood has been simply treated to preserve the natural appearance of its figure and grain.

apply as well to our native cypress as to the Japanese sugi wood, and hence the term "sugi finished cypress."

The uses of cypress for interior finish are obviously not prescribed by any detrimental features of the wood itself, in points either of its physical properties or its appearance, and it is, as well, generally available and not regarded as by any means an expensive wood.

## RED GUM.

RED gum is an interesting wood which has found wide use only in comparatively recent years. This is because it used to be considered so difficult to "season" properly that the mills did not care to handle it. The designation "red" in its name must be supposed to have been applied on account of the color of the leaves in autumn rather than the color of the wood itself, though this is a rather reddish brown.

One often hears of "sap gum" in connection with "red gum," and allusions frequently imply that the former is another kind of gum tree, whereas "sap gum" is the "sapwood" growth of the red gum tree, and "red gum" is the "heartwood" growth of the same tree. These two varieties cut from the same trunk are now being distinguished in architects' specifications.

Consequently, the color of the wood will depend upon whether or not it has been cut from the heartwood or the sapwood, and it is advisable to specify, in spite of the fact that the two growths from the same log are now being regarded virtually as different woods.

In texture red gum presents a close, interlocked grain, and hence requires no "filler" as a base for paint, stain, or enamel, its smooth surface making it also adaptable in this regard. It is easily worked and of a grain sufficiently fine and compact to take carving well.

Commercially, the term "red gum" applies to the heartwood of the red gum tree. In Europe this wood is known as red gum, satin walnut, and hazelwood. Unselected gum, or sap gum, may be partly heartwood and partly sapwood, or all sapwood. Red gum is furnished in either plain or quarter sawed lumber and veneer. The veneer is usually rotary cut, and is now being used in a proportion four times the quantity of any other species. Two of the most important uses of red gum are for doors and interior finish. It is essential, of course, that the wood be properly seasoned, in which case veneer-built doors of red gum are rigid and free from warp, and possess desirable qualities of stability and appearance.

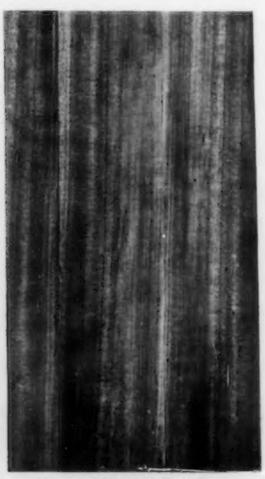
**Paneling in the Showrooms of Irving & Casson, Boston, Mass.**

The stiles, rails, and all mouldings are of selected gum wood, with panels of Circassian walnut. The wood has been treated with a very light water stain and finished with a light coat of wax to preserve its natural beauty and original color.

Red gum has been found of peculiar adaptability for use as interior trim and doors in hospitals, for the reason that it is odorless and has a grain so closely interlocked that it is practically impossible to force any foreign matter into its structure. Being free from resinous properties, both red and sap gum form excellent bases for white enamel, which sets with a hard and brilliant surface.

In the matter of appearance red gum is unique — in fact, a kind of mockingbird among woods. It is doubtful if the natural grain of any wood may be converted merely by a stain finish to so closely resemble as great a variety

Plain Red Gum



Quarter Sawed Red Gum

Selected Figured Red Gum

Rotary Cut Red Gum

of other woods. Red gum, selected for figure, is the only wood which successfully imitates Circassian walnut, while the straight grain stains to an excellent imitation of mahogany, walnut, cherry, or even maple.

All red gum lumber does not possess the figure. This must be selected. But where figure does exist, it runs so deeply through a plank that matched quartered panels may be obtained with greater perfection than in any other wood excepting Circassian walnut.

The increasing use of red gum for interior trim is naturally creating a demand for furniture to match, and the manufacturers are proceeding accordingly.

Red gum is especially adapted to dull finishes, taking on a satin-like sheen, which, even in a "natural" finish, does not show finger marks.

Living Room, Elizabeth Peabody House, Boston, Mass.
R. Clipston Sturgis, Architect

All woodwork is red gum, with only a light coat of wax for a finish. By accident the wood was covered with a heavy coat of orange shellac when set in place, and although removed later, some entered the pores of the wood, which acts as a preserver without altering the effect desired. The paneling is finished by a carved cornice.

Certain specific recommendations have been found advisable in connection with finishes. By reason of its rich natural color, red gum is better without a pigment stain, but finished as near "natural" as possible. To obtain a clear and attractive finish, it is recommended to apply a coat of bleached shellac for a surfacer, bodied up with a very pale varnish. Pale, thin, quick-drying varnishes are better than those of heavy body, because they stand oil rubbing better. It has been found from general experience that a heavy varnish is apt to "pull out" of red gum.

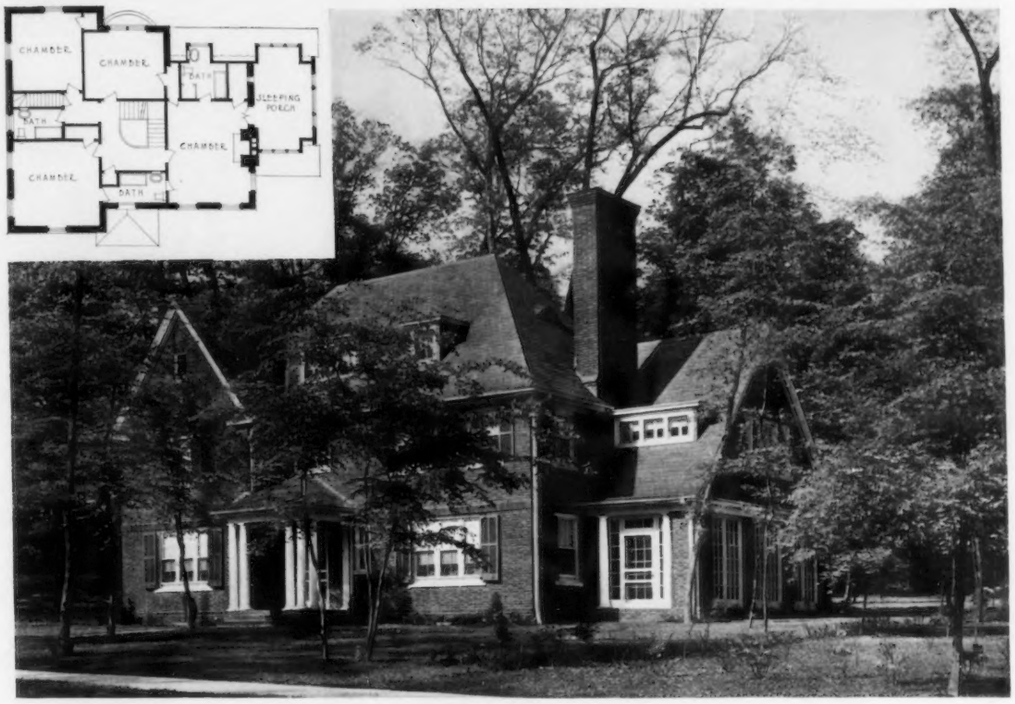
Among woods for interior finish distinctively native, red gum, like cypress, seems destined to occupy a unique and prominent place.

Chamber in House at Dedham, Mass.
James Purdon, Architect

The walls are paneled with selected gum wood, treated with wax to leave the wood in its natural color. The furniture is of the same wood and the fireplace facing of dull blue tiles.

Library in House at Lake Forest, Ill.
Howard Shaw, Architect

The walls of this room are given a distinctive appearance by the use of large panels of gum wood which have been stained and given a dull finish. The stiles are chamfered.




VIEW OF FRONT

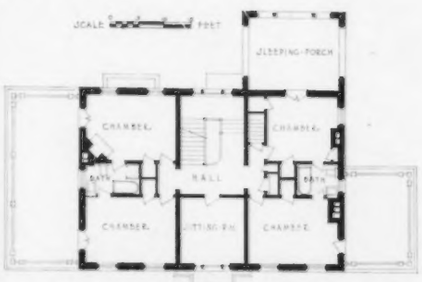
VIEW OF REAR

HOUSE OF EUGENE L. NORTON, GUILFORD, BALTIMORE, MD.

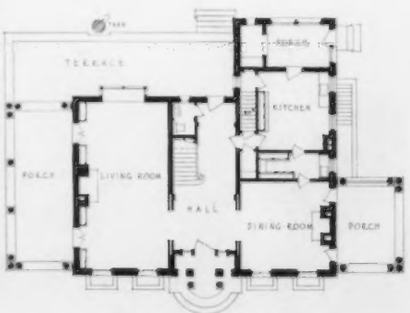
EDWARD L. PALMER, JR., ARCHITECT

VIEW OF FRONT

ENTRANCE DETAIL




SECOND FLOOR PLAN




FIRST FLOOR PLAN

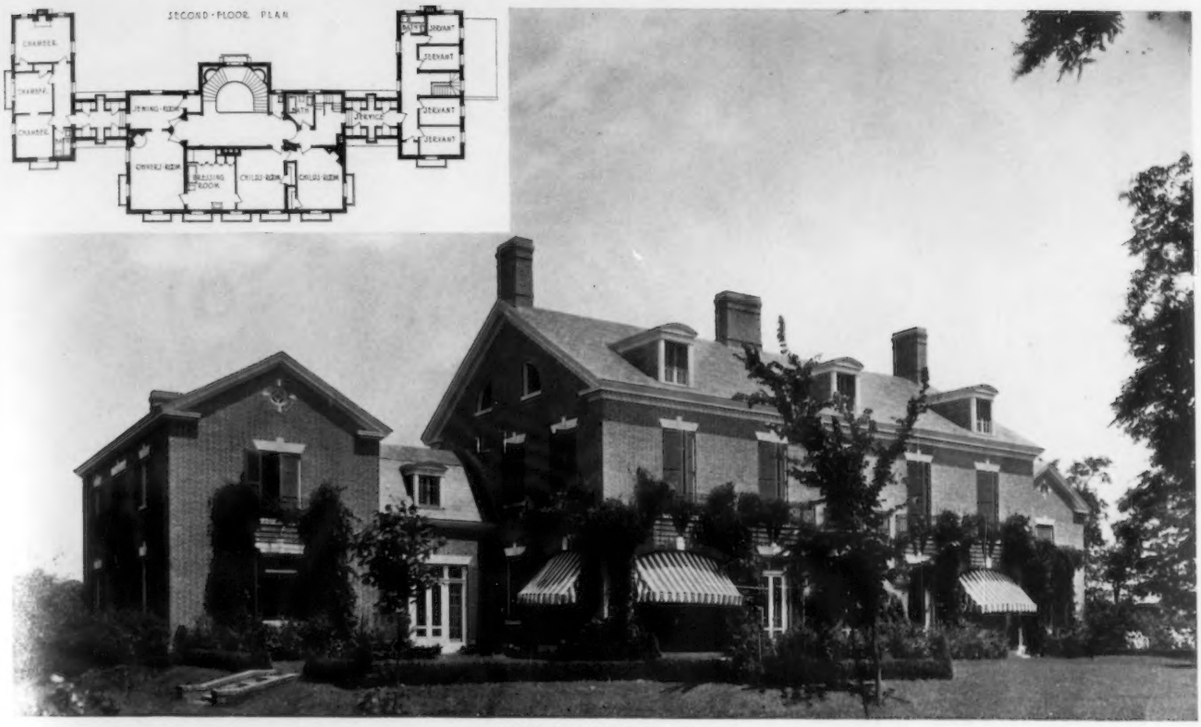
HOUSE OF MRS. GEORGE W. GAIL, GUILFORD, BALTIMORE, MD.

EDWARD L. PALMER, JR., ARCHITECT

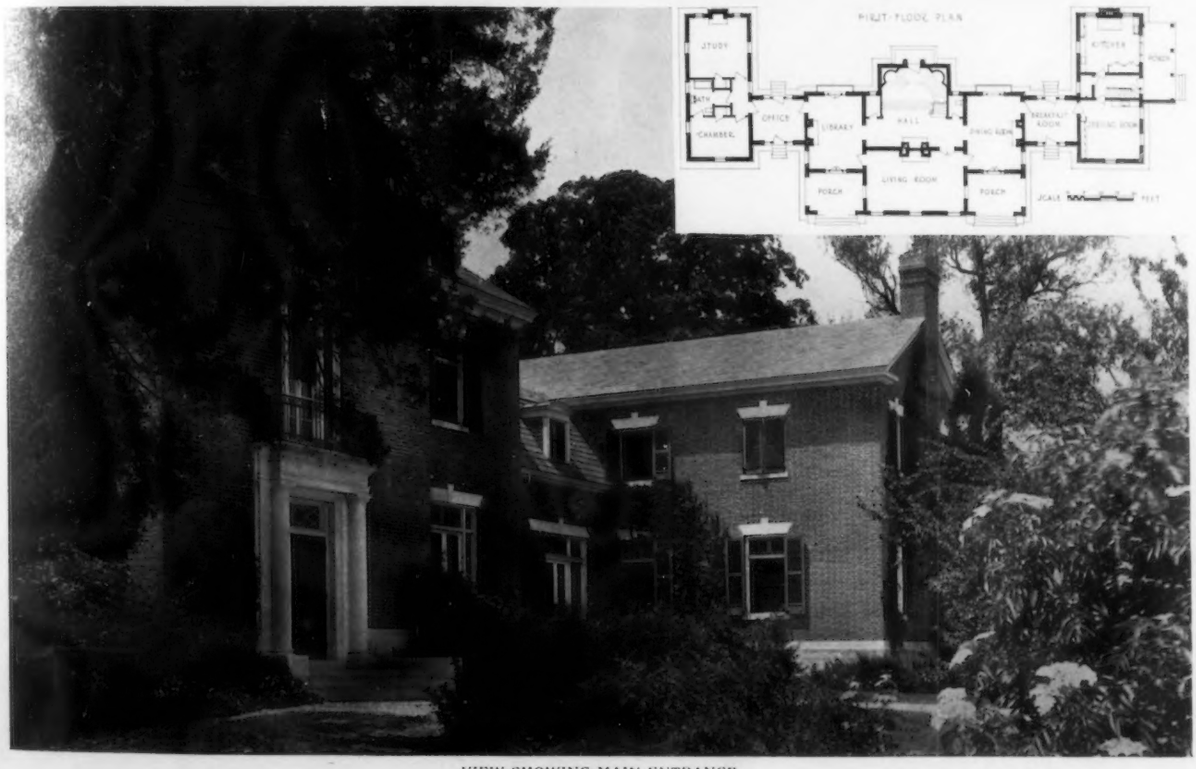
GENERAL VIEW OF WATER FRONT

HOUSE OF S. W. LABROT, ESQ., ANNAPOLIS, MD.

PARKER, THOMAS & RICE, ARCHITECTS



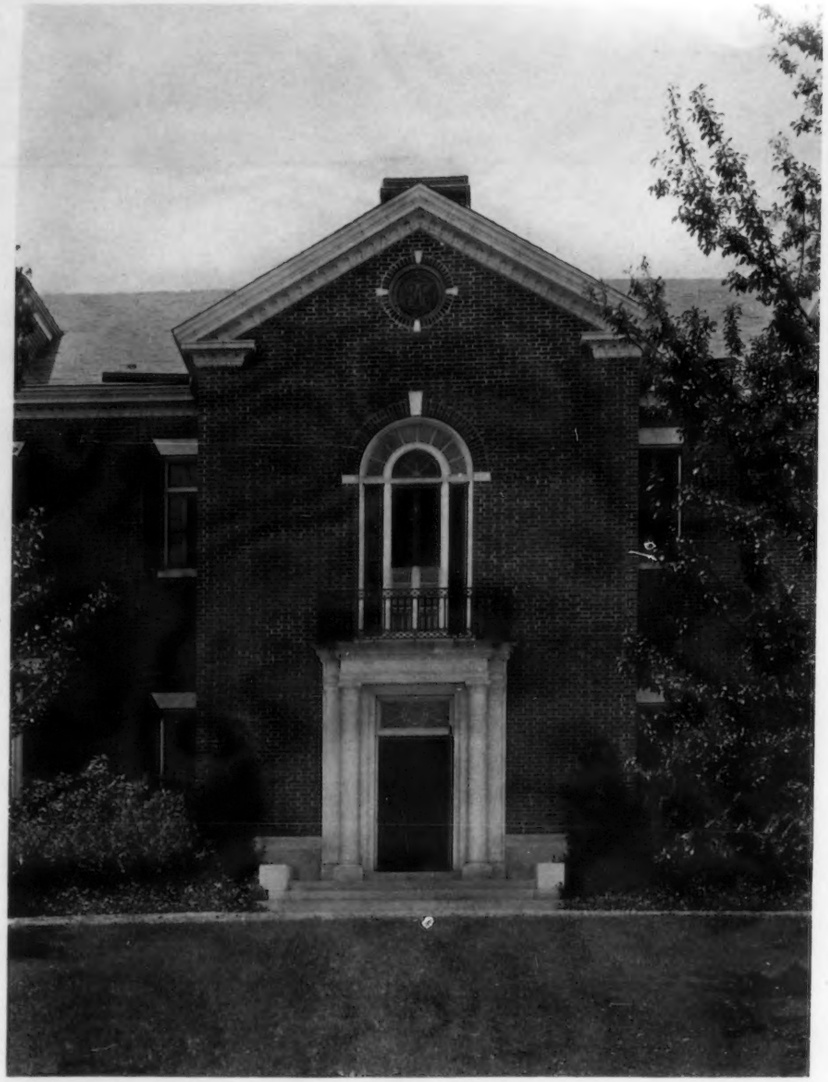

VIEW OF WATER FRONT




VIEW SHOWING MAIN ENTRANCE

HOUSE OF S. W. LABROT, ESQ., ANNAPOLIS, MD.

PARKER, THOMAS & RICE, ARCHITECTS



DETAIL OF MAIN ENTRANCE

VIEW OF STUDY WING

VIEW SHOWING SERVICE WING

HOUSE OF S. W. LABROT, ESQ., ANNAPOLIS, MD.

PARKER, THOMAS & RICE, ARCHITECTS

VIEW FROM STREET

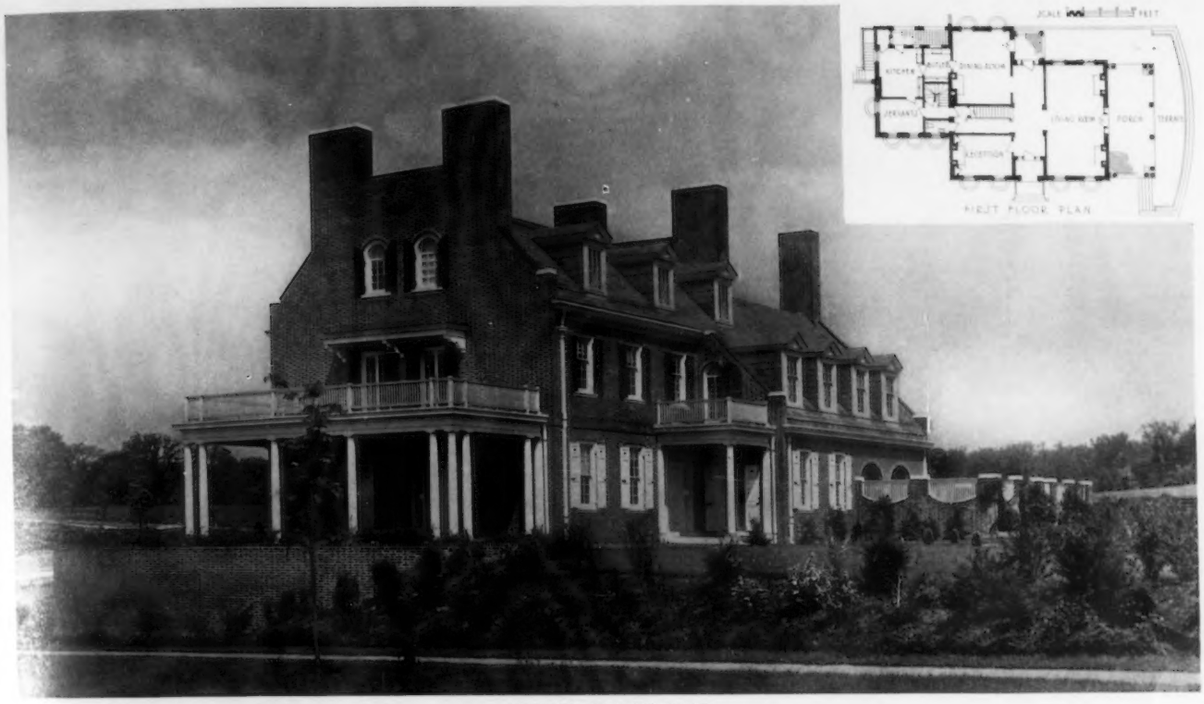



PLOT PLAN

VIEW FROM REAR

HOUSE AT GUILFORD, BALTIMORE, MD.

HOWARD SILL, ARCHITECT



VIEW FROM SOUTHEAST

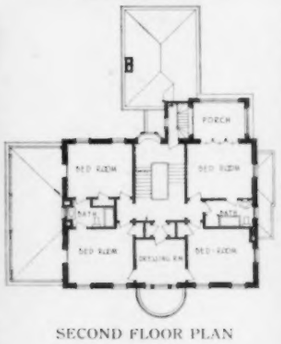
VIEW FROM NORTHWEST

HOUSE AT GUILFORD, BALTIMORE, MD.

HOWARD SILL, ARCHITECT

VIEW FROM STREET

DETAIL OF SIDE ENTRANCE



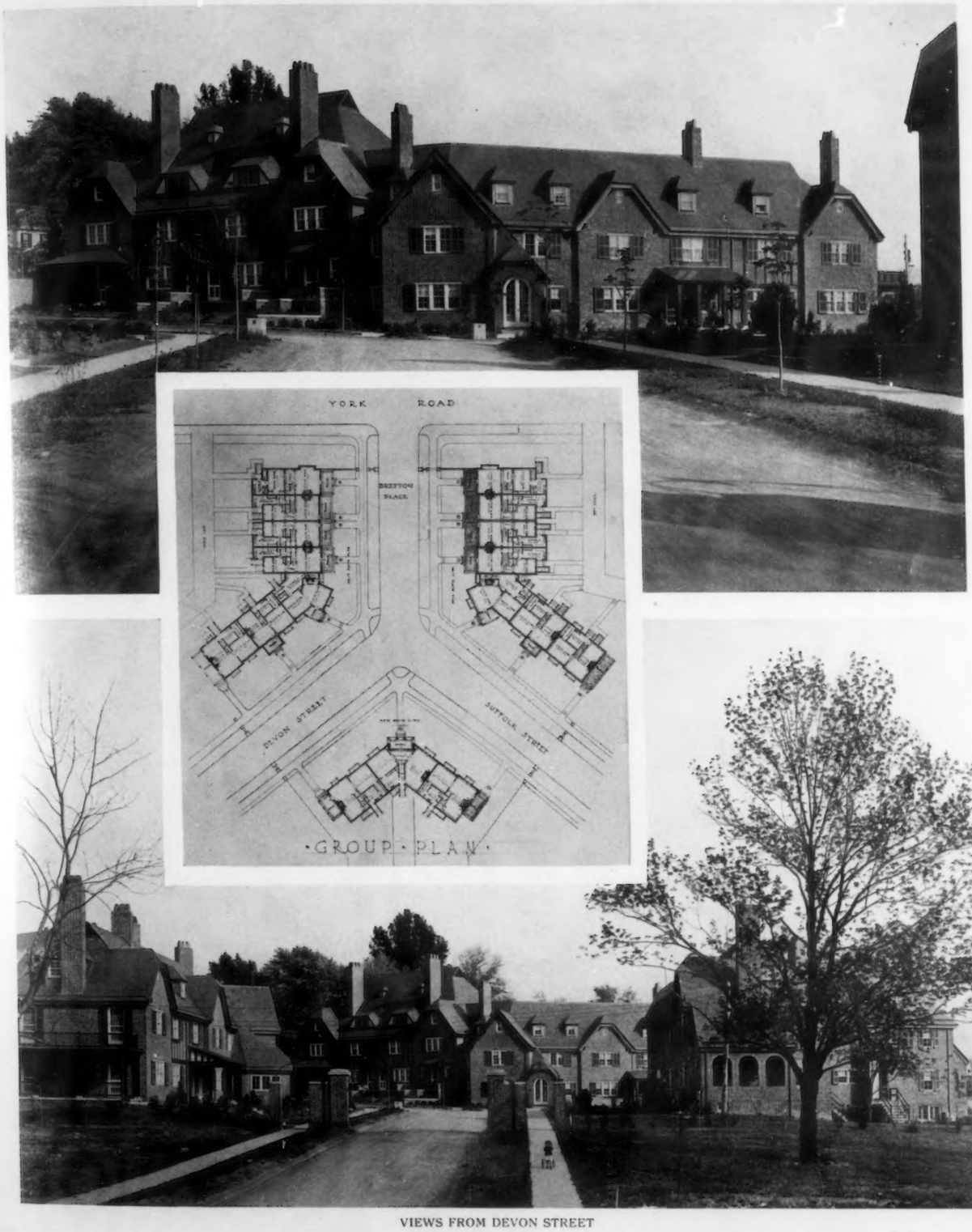

SECOND FLOOR PLAN

FIRST FLOOR PLAN

DETAIL OF MAIN ENTRANCE

HOUSE OF MRS. C. L. APPLEGARTH, GUILFORD, BALTIMORE, MD.

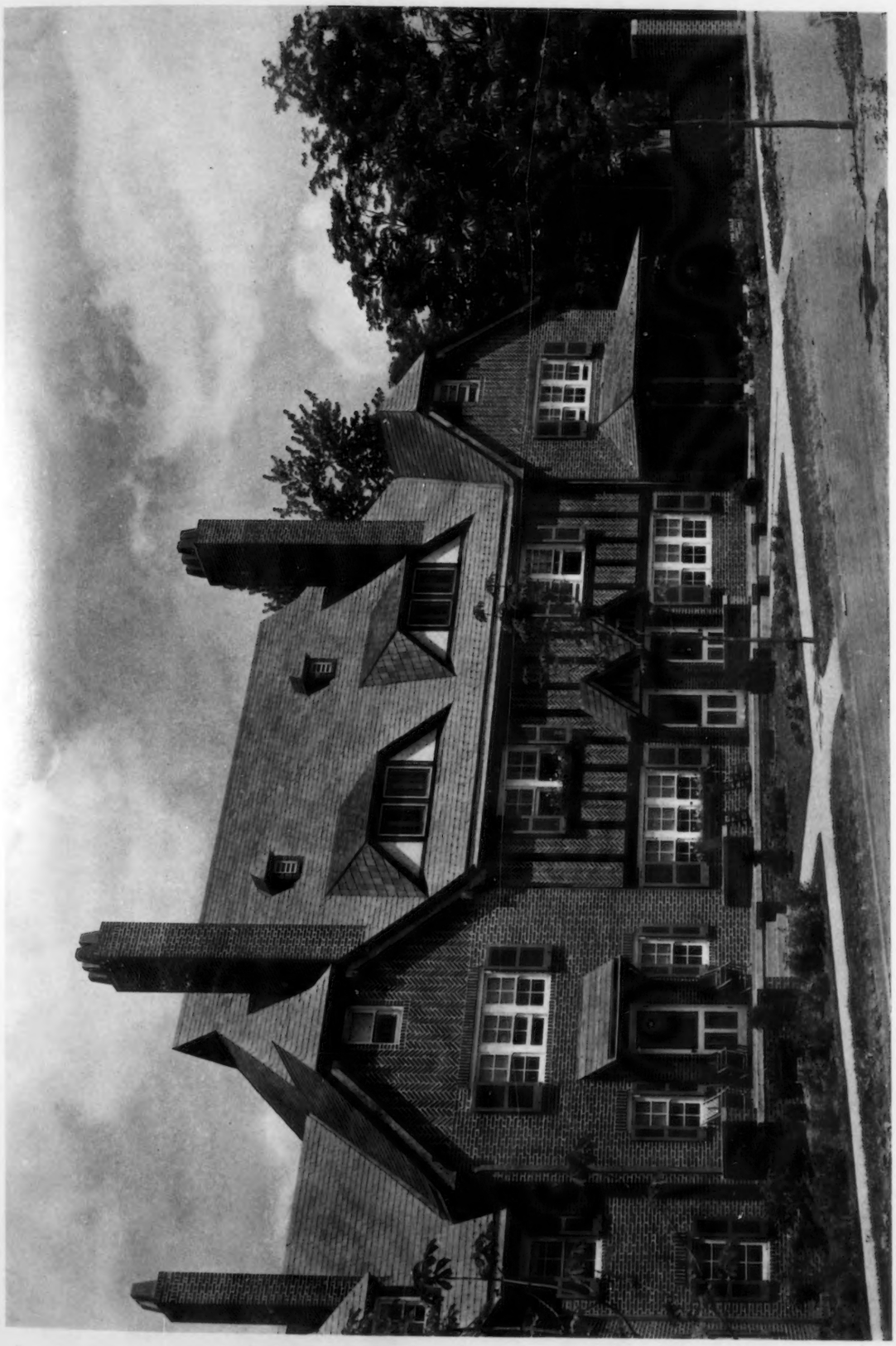
HOWARD SILL, ARCHITECT



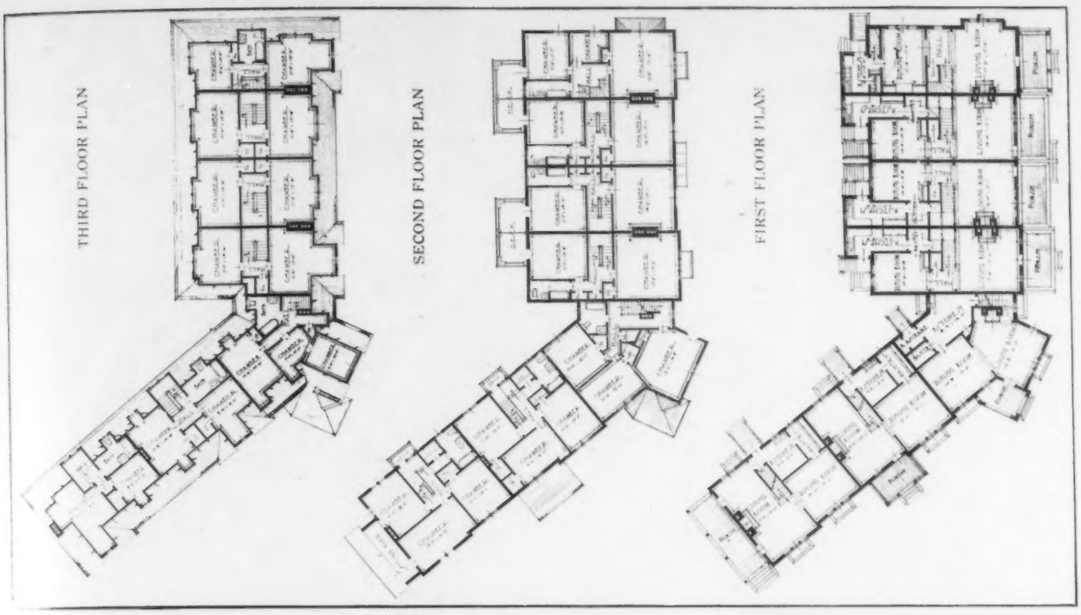

VIEWS FROM DEVON STREET

GROUP OF HOUSES AT GUILFORD, BALTIMORE, MD.

EDWARD L. PALMER, JR., ARCHITECT



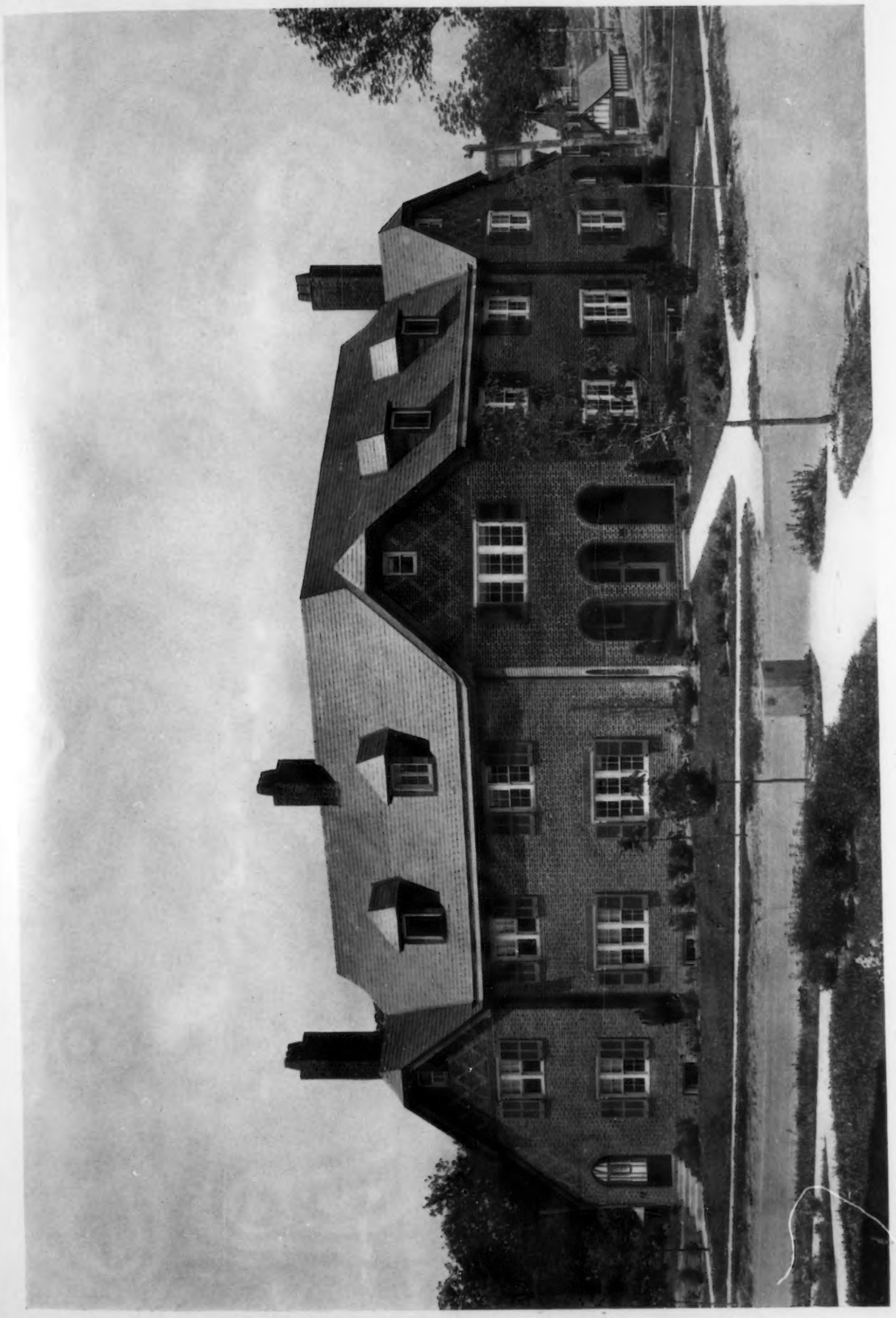
HOUSES ON DEVON STREET AND BRETTON PLACE, GUILFORD, BALTIMORE, MD.
EDWARD L. PALMER, JR., ARCHITECT



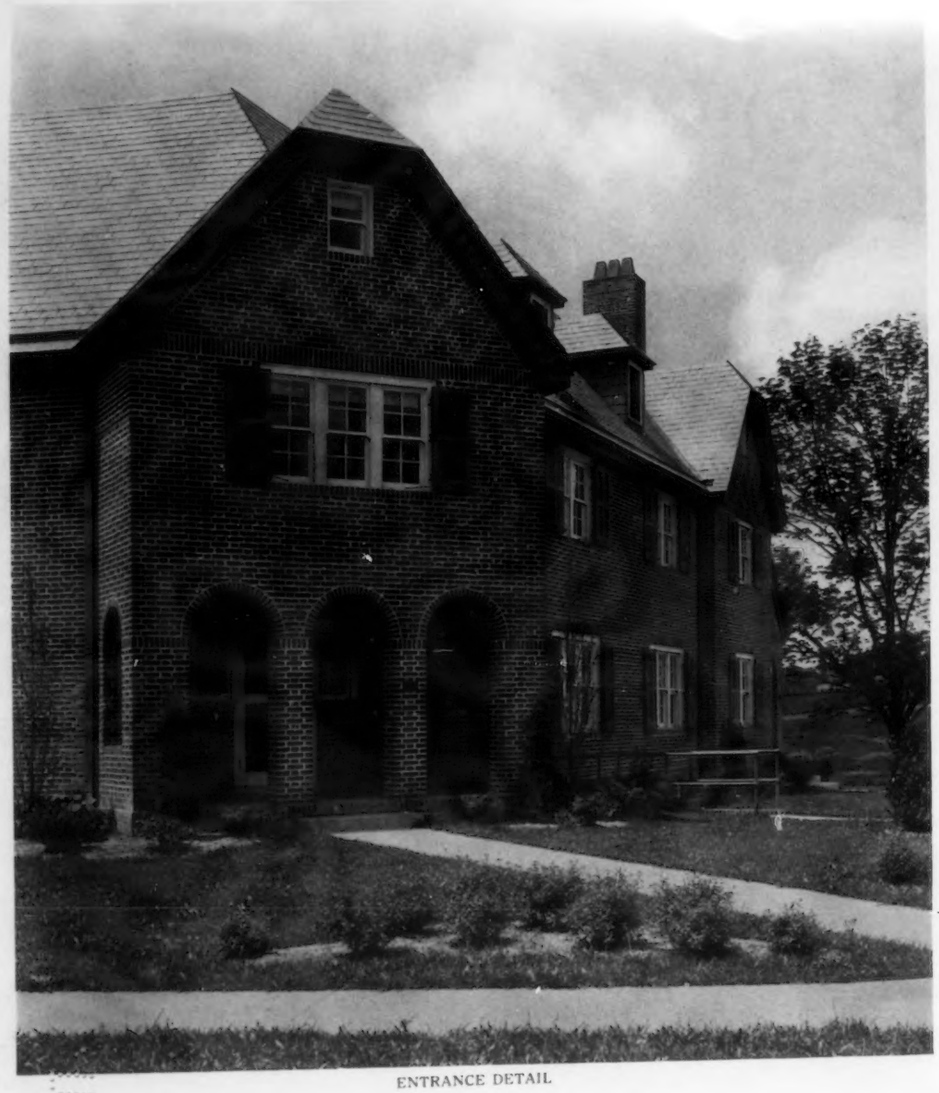
ENTRANCE DETAIL.

HOUSES ON DEVON STREET AND BRETTON PLACE, GUILFORD, BALTIMORE, MD.

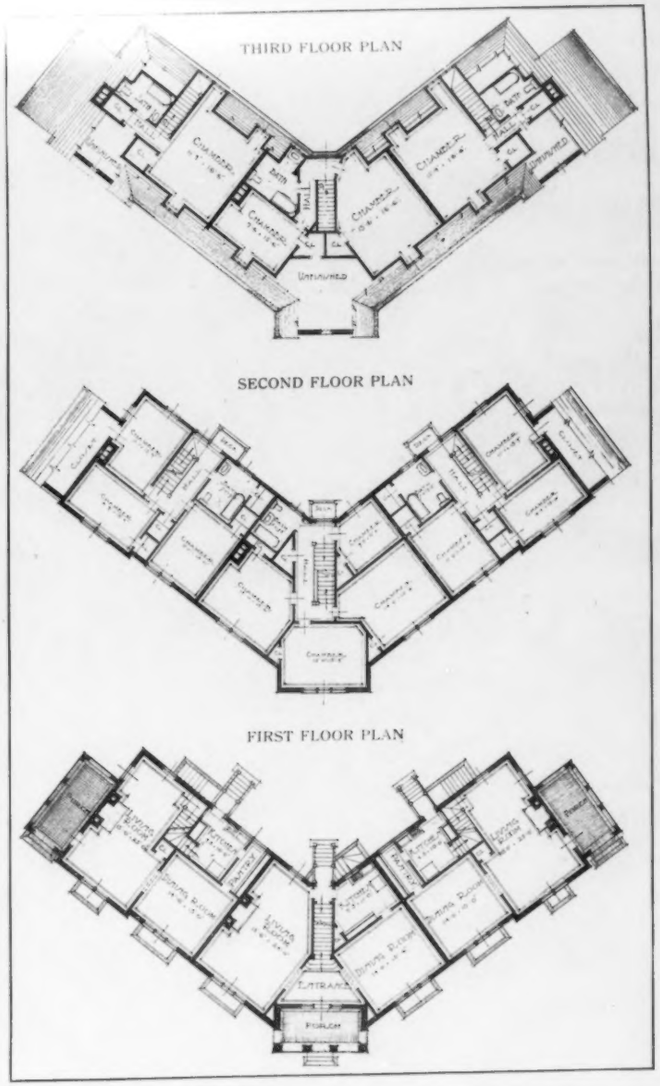
EDWARD L. PALMER, JR., ARCHITECT



HOUSES ON DEVON AND SUFFOLK STREETS, GUILFORD, BALTIMORE, MD.
EDWARD L. PALMER, JR., ARCHITECT



ENTRANCE DETAIL



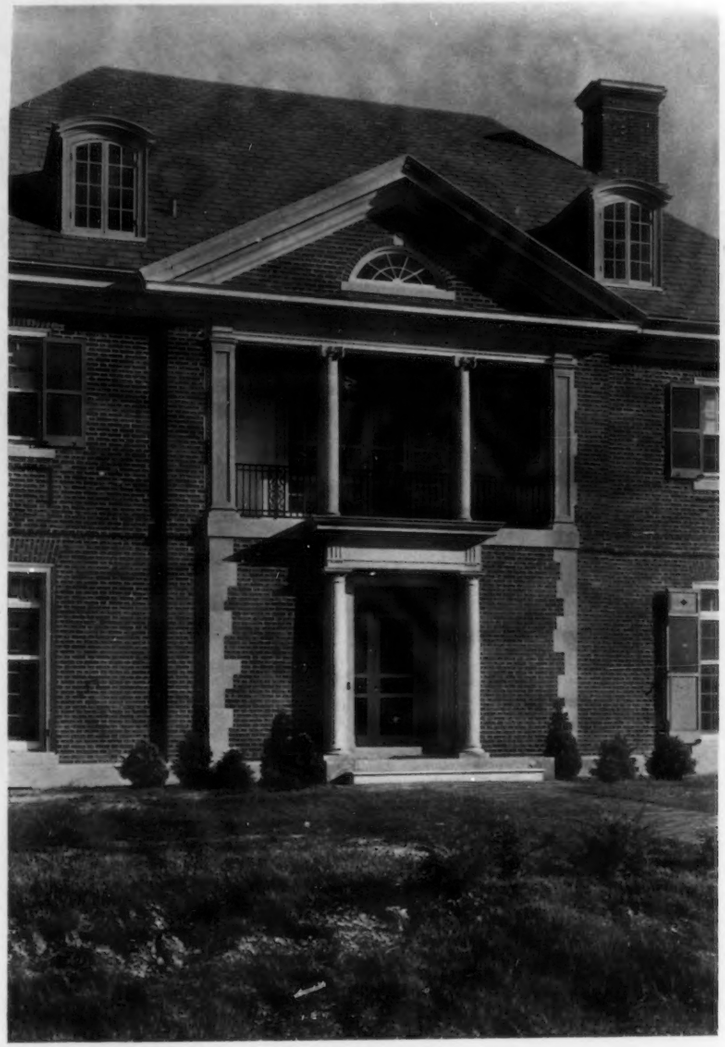

HOUSES ON DEVON AND SUFFOLK STREETS. GUILFORD, BALTIMORE, MD.

EDWARD L. PALMER, JR., ARCHITECT

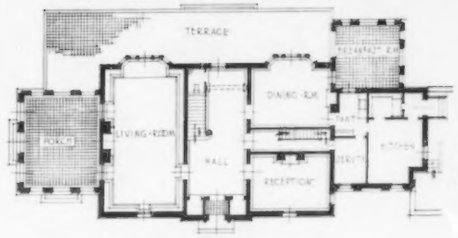
VIEW OF GARDEN FRONT

HOUSE OF JAMES McEVOY, ESQ., GUILFORD, BALTIMORE, MD.

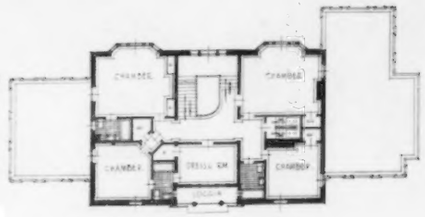
THOMAS BOND OWINGS, ARCHITECT



ENTRANCE FRONT




FIRST FLOOR PLAN




SECOND FLOOR PLAN

HOUSE OF JAMES McEVOY, ESQ., GUILFORD, BALTIMORE, MD.

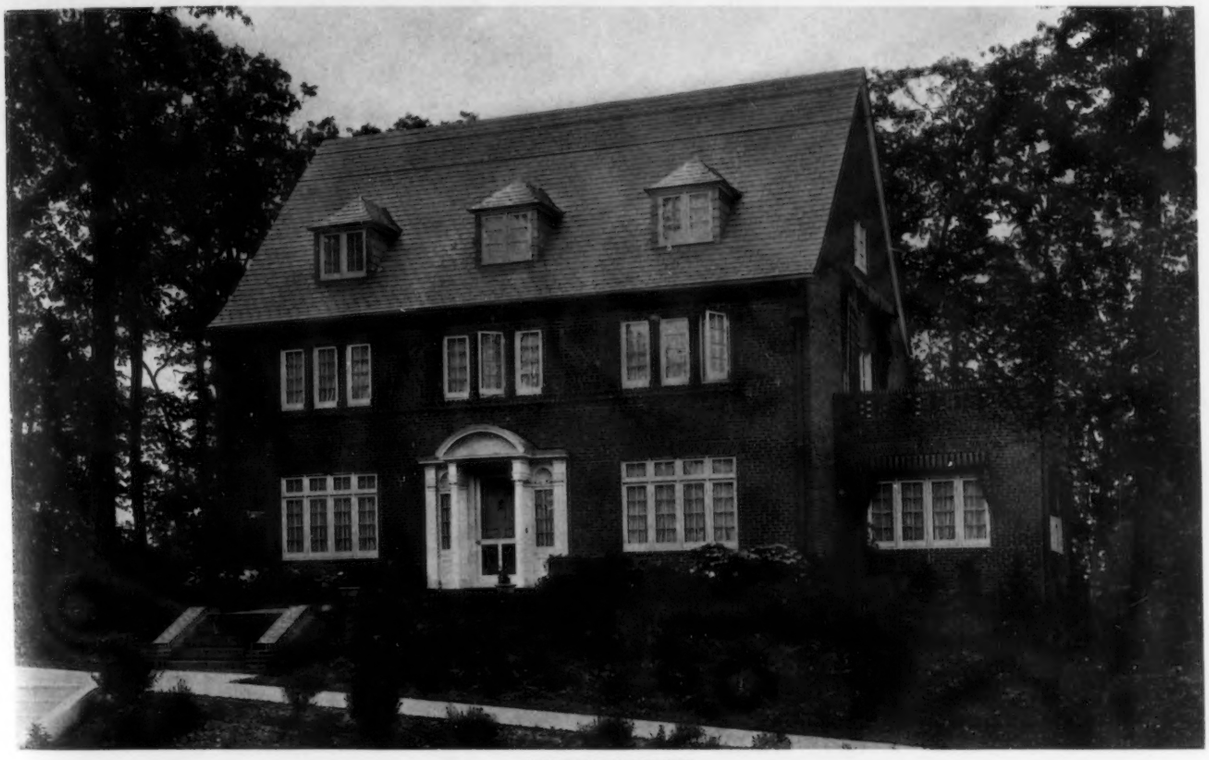
THOMAS BOND OWINGS, ARCHITECT

VIEW FROM STREET

VIEW FROM GARDEN

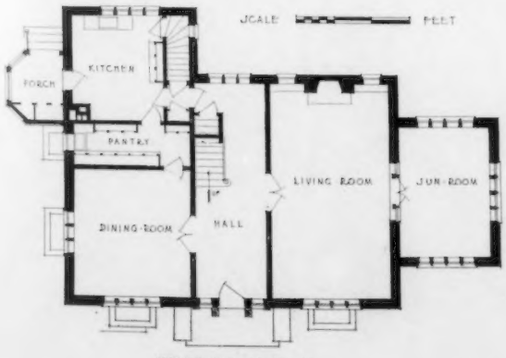
HOUSE AT GUILFORD, BALTIMORE, MD

JOSEPH EVANS SPERRY, ARCHITECT



VIEW FROM STREET

SECOND FLOOR PLAN



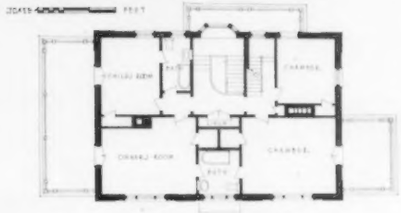

FIRST FLOOR PLAN

DETAIL OF ENTRANCE

HOUSE OF JAMES C FENHAGEN, ESQ., GUILFORD, BALTIMORE, MD.

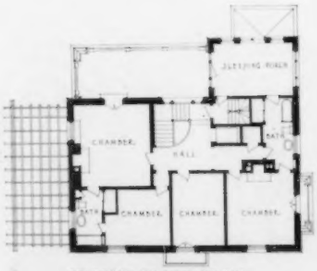
LAURENCE HALL FOWLER, ARCHITECT

FIRST FLOOR PLAN

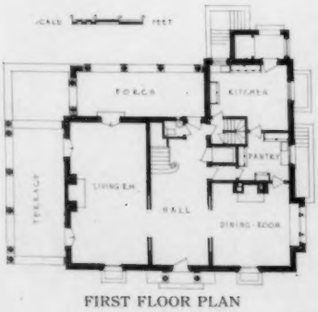


SECOND FLOOR PLAN

HOUSE OF WILLIAM FUSSELBAUGH, ESQ.




SECOND FLOOR PLAN



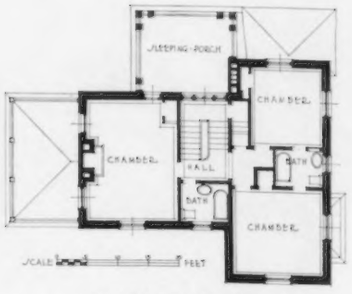

FIRST FLOOR PLAN

HOUSE OF DR. JOSEPH S. AMES

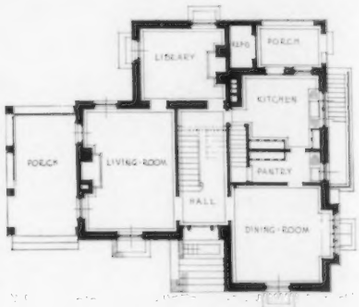
TWO HOUSES AT GUILFORD, BALTIMORE, MD.

EDWARD L. PALMER, JR., ARCHITECT

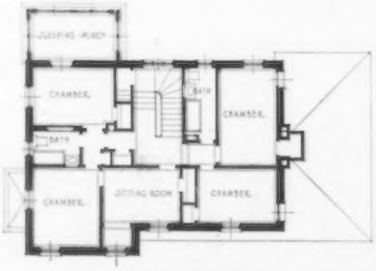
HOUSE OF A. MORRIS TYSON, ESQ.



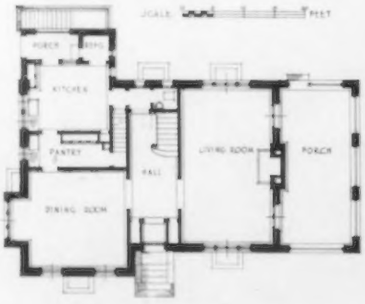

SECOND FLOOR PLAN




FIRST FLOOR PLAN




SECOND FLOOR PLAN



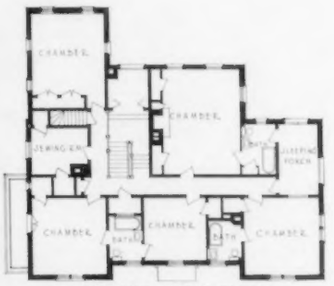

FIRST FLOOR PLAN

HOUSE OF JOHN DANIELS, ESQ.

TWO HOUSES AT GUILFORD, BALTIMORE, MD.

EDWARD L. PALMER, JR., ARCHITECT

VIEW FROM STREET

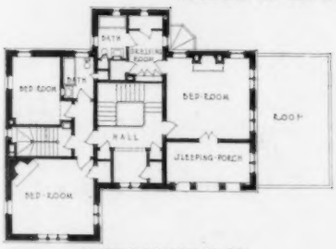



SECOND FLOOR PLAN

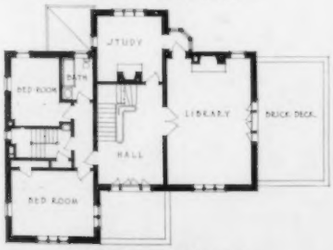
FIRST FLOOR PLAN

HOUSE OF CHARLES W. HENDLEY, ESQ., GUILFORD, BALTIMORE, MD.

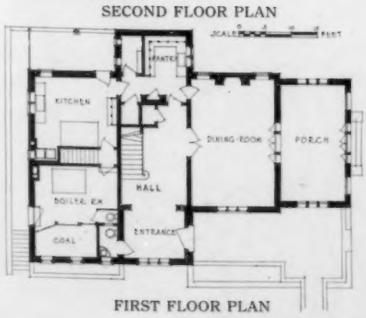
E. H. GLIDDEN, ARCHITECT




THIRD FLOOR PLAN




SECOND FLOOR PLAN




FIRST FLOOR PLAN

HOUSE OF JOHN E. SEMMES, JR., ESQ., GUILFORD, BALTIMORE, MD.

LAURENCE HALL FOWLER, ARCHITECT

# The Church Towers, Steeples, and Spires of Sir Christopher Wren.

## PART II.

*By* R. RANDAL PHILLIPS.

IN a letter written to a friend in 1708 on the subject of the further rebuilding of churches in London, Wren gives some details in connection with materials which may here be quoted as prefatory to a further consideration of his church towers and spires. He says: "It is true the mighty demand for the hasty works of thousands of houses at once, after the fire of London, and the frauds of those who built by the great, have so debased the value of materials, that good bricks are not to be now had, without greater prices than formerly, and indeed, if rightly made, will deserve them; but brick-makers spoil the earth in the mixing and hasty burning, till the bricks will hardly bear weight; though the earth about London, rightly managed, will yield as good brick as were the Roman bricks, (which I have often found in the old ruins of the city) and will endure, in our air, beyond any stone our island affords; which, unless the quarries lie near the sea, are too dear for general use; the best is Portland, or Roch-abbey stone; but these are not without their faults. The next material is the lime; chalk-lime is the constant practice, which, well mixed with good sand, is not amiss, though much worse than hard stone-lime. The vaulting of St. Paul's is a rendering as hard as stone; it is composed of cockle-shell-lime well beaten with sand; the more labour in the beating, the better and stronger the mortar. I shall say nothing of marble, (though England, Scotland, and Ireland, afford good, and of beautiful colours) but this will prove too costly for our purpose, unless for altar-pieces. In windows and doors Portland-stone may be used, with good bricks, and stone quoyns. As to roofs, good oak is certainly the best; because it will bear some negligence. The churchwardens' care may be defective in speedy mending drips; they usually whitewash the church, and set up their names, but neglect to preserve the roof over their heads. It must be allowed, that the roof being more out of sight, is still more unminded. Next to oak is good yellow deal, which is a timber of length, and light, and makes excellent work at first, but if neglected will speedily perish, especially if gutters (which is a general fault in builders) be made to run upon the principal rafters, the ruin may be sudden. Our sea-service for oak, and the wars in the North-sea, make timber at present of excessive price. I suppose 'ere long we must have recourse to the West-Indies, where most excellent timber may be had for cutting and fetching. Our tiles are illmade, and our slate not good; lead is certainly the best and lightest covering, and being of our own growth and manufacture, and lasting, if properly laid, for many hundred years, is without question, the most preferable; though I will not deny but an excellent tile may be made to be very durable; our artisans are not yet instructed in it, and it is not soon done to inform them."

St. Vedast's, Foster Lane

Christ Church, Newgate Street

Of the wonderful use which Wren made of lead for the spires of his city churches we shall speak later, but before doing so it is necessary to deal with the remainder of his steeples.

St. Vedast's, Foster lane, presents in many respects

marked contrasts. It is a composition in which the square, the convex, and the concave occur, arranged with buttress-like angles, resulting in a strong, pleasing, and distinctly original achievement. The tower is, as usual, square to the top of the belfry stage. Above, instead of the angles being curtailed, they are preserved and developed by the aid of pilasters into buttress shapes, the main faces of the square being set back in the form of a concave curve. This is repeated in the next stage, except that the four main faces are made convex, but at the same time are kept well behind the angles. Above the cornice of this stage is a small base from which rises the pyramidal terminal. The main effects of such a treatment are, that the difficulties usually experienced in curtailing the diagonals without undue abruptness are largely decreased; the necessity for urns is avoided; the angles are strongly defined and of good contour, the ascent being graduated; while the curved and broken entablatures afford the minimum check to the eye; at the same time the sharp lines and curved faces throw shadows both hard and soft, and the whole scheme thus tends to a very successful result. The construction of the tower differs, necessarily, from the usual methods employed by Wren. Flat faced corbeling pendentives are formed in the upper part of the belfry, from the top of which segmental arches are thrown one to the other, thus forming a platform pierced at the center. On this platform stands the first of the upper stages, which is perfectly square internally, all the masonry being massed at the angles. Near the top of this stage true pendentives are formed to carry the upper portion, which is circular internally and is corbeled over at the top to support the superstructure, liberal recourse being made to iron bands at this point. Once above the belfry stage the steeple is entirely open to the weather, and consists really of four big, inclining angle buttresses held in position by the comparatively shell-like walls.

St. Margaret, Pattens, Road Lane

Christ Church, Newgate street, is perhaps the least successful of Wren's stone steeples, serving to show the fatality of adhering to a square plan throughout all the stages. Unless one is prepared to go on building up indefinitely, extravagant breaks at the various stage levels must be made in order to terminate the steeple, thus giving rise to a most disjointed appearance as a whole. In fairness to the architect, however, it should be stated that the steeple of Christ Church was robbed of its corner vases about 1828. The belfry stage is unusually squat, and in spite of its rows of pilasters appears unable to support the massive attic and balustrade. Rising from behind the balustrade is the square stylobate that carries the open colonnade, through which can be seen the square core that appears above as the miserably thin lantern with its colossal and glorified baluster terminal. At St. Mary-le-Bow, where the corresponding stages are circular, the inverted consoles are used with telling effect, and their equivalent want is most grievously felt in this example. No attempt has been made to minimize the horizontal effect of the entablatures, as is usually done by breaking them in certain positions, with the result that not only are the breaks from stage to stage great, but the horizontal lines are most pronounced. Constructively the whole is naturally square throughout. Big squinch arches in the belfry support massive arches running parallel with the walls, the upper surface forming a platform on which stands the square stylobate under the colonnade. This stylobate is triangular in section, the inner shell converging to the lines of the square core above, the base of the triangle being formed by the peristyle floor. The weight of the topmost stage, buttressed up by the peristyle, passes down through the square core and inclined wall of the triangle on to the massive walls of the tower.

*Towers with Spires.* Although one naturally looks for Wren's masterpieces among his steeples, he was really none the less successful in his spires. His genius in moulding stonework to most beautiful shapes has already been alluded to; but with lead, owing to the nature of the material, he had a freer hand, and consequently indulged in some most fantastic shapes, just as his fancy thought fit or the conditions suggested.

St. Martin's, Ludgate Hill, may, perhaps, be considered his best design for a lead spire, being in fact, a work of singular interest and charm, not only in itself, but also in its relation to the cathedral beyond. As in all his designs, the base of the tower is visible from the ground, and the flanking aisle walls are brought up to the sides of the tower by gigantic stone scrolls. From the stone octagonal base with its consoles there rises above the tower cornice the graceful lead shape, leading up to the open balcony with the crowning turret and spire, the whole producing a most beautiful and delicate result.

St. Nicholas Cole Abbey is among his least successful

ST. NICHOLAS COLE ABBEY
KNIGHTRIDER STREET

ST. AUGUSTINE AND ST. FAITH
WATLING STREET

ST. MARTIN'S
LUDGATE HILL

ST. SWITHIN'S
CANNON STREET

designs, being lacking in elegance and scale. Rising from a stone octagonal base on top of the tower, the big lead sweep with its numerous "eyes" carries one up to the capping supporting the balcony railing above, from within which rises the terminal, built up with its various shapes. The balcony, however, is a blemish, as it cuts the line of the spire most unfortunately at this point.

The treatment adopted for the spire of St. Augustine and St. Faith reminds one somewhat of St. James's, Garlick Hill, and St. Vedast's, Foster lane, inasmuch as the angles of the spire are throughout its height likewise strongly accentuated, first by lead sweeps, then by pilasters, and finally by scrolls and vases leading up to the spire proper. The effect is one of considerable originality and grace.

St. Margaret, Pattens is remarkable for its great octagonal spire, rising to a height of 200 feet, the highest of all Wren's spires. The tower itself is fine in scale, a massive piece of stonework relieved by horizontal mouldings and by shallow pilasters at the angles. There is a well designed balustrade with corner piers carrying obelisk pinnacles, and from within this balustrade the spire rises. It is paneled on each face, pierced by small openings at three levels, and terminated by a ball and vane. Altogether it is a very noteworthy achievement as a classical rendering of a Gothic spire.

St. Mildred's, Bread Street

Similar in treatment is the spire of St. Swithin's, Cannon street, where a lead covered octagon emerges again from within a stone balustrade; but in this example the chamfering of the corners of the tower in order to change the form from the square to the octagon cannot be regarded as a pleasing expedient. The height of the spire is 150 feet.

Though St. Mildred's, Bread street, has been almost swallowed up by modern buildings, and is lost to sight at street level, it possesses a very beautiful little spire, as will be seen from the accompanying photograph taken at roof level. The tower itself is of brick, crowned by a strong cornice and blocking course, from which a graceful sweep leads to a lantern whose corners are marked by ramps and pilasters carrying an entablature. Above rises the spire proper, resting on balls at the four angles, and tapering away gently, a ball and vane completing the design.

Wren used all kinds of forms for his spires, and among them the cupola frequently figures as a base for a lantern and terminal. His most successful result in this manner is unquestionably St. Benet's, Paul's Wharf, a brick church, with a tower and spire that are quite perfect. The tower itself, 17 feet square on plan, is in three stages, with stone quoins alternating with brick at the corners. The cupola is set upon a deep blocking course; it has eight small oval windows, around which the lead is dressed completely, and is finished with a corona as a base for the open octagonal lantern. For this latter, Wren has adopted his favored treatment of ramps and pilasters carrying an entablature, the latter being broken out over each pilaster.

St. Mary, Abchurch has a brick tower surmounted by an ogee cupola supporting an open lantern and spire. This is one of the least successful of Wren's spires, the outline being very awkward.

A cupola supporting a spire is used again in St. Margaret's, Lothbury, the spire of which is in some respects very similar to St. Mildred's. It is not, however, equal in design to the fine tower below it, which is of excellent proportions, and possesses, moreover, a noble entrance doorway.

St. Benet's, Paul's Wharf

St. Mary, Abchurch, Abchurch Lane

The examples illustrated are remarkable for their variety in the treatment of the Renaissance spire, but they do not exhaust Wren's achievements in this direction, for there were some further very striking examples among the churches that have been demolished, — St. Benet's, Gracechurch street; St. Michael's, Queenhithe; and St. Michael's, Crooked lane, being the most notable; while with the demolition of St. Antholin's, Watling street, went the only stone spire, pure and simple, which Wren carried out.

St. Edmund, King and Martyr, in Lombard street, has on its tower a sort of large lantern,

rather than a spire, and this serves to remind us that though Wren in the University chapels which he built at Oxford and Cambridge did not include any tower or spire, Emmanuel College Chapel and Pembroke College Chapel have lanterns of particularly elegant design.

St. Philip Magnus, London Bridge, must be regarded in a class apart, for it is a strange mixture of a steeple, a cupola, and a spire. The tower is not equal in design to some of the other towers by Wren. The stages are too numerous, and the balustrade over the belfry is extremely crude. Better work is seen in the octagonal stone lantern above, carrying a cupola, a smaller lantern, and a spire. But regarded as a whole, one feels that too many features are crowded upon one another in this design.

There remains only to mention the tower of St. Dunstan's-in-the-East. This is in the perpendicular style which appealed to Wren when he was required to work in the Gothic manner, the crowning feature being a stone spire carried on four flying buttresses. It is interesting as a classical essay in the Gothic, but does not call forth much admiration, the form of the spire being essentially unsatisfactory.

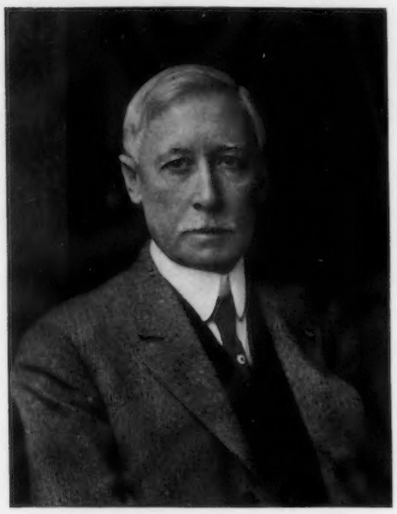
Thus we have passed in review the unique series of church towers, steeples, and spires designed by Sir Christopher Wren. The versatility of this great man was astonishing, and no less remarkable was his capacity for work. Though he did not take up the study of architecture until he was thirty, he designed no fewer than fifty churches in the city of London and Westminster, in addition to a great cathedral, three palaces, two large hospitals, several important university buildings, numerous city company halls and civic buildings, and many works of domestic character. Truly the labors of an architectural Hercules! Of his city churches sixteen have already been demolished, and there is always danger of others having to make way for improvements. Let us hope, however, that the hand of the spoiler will be kept from them for Wren's churches are among the architectural treasures of London.

St. Margaret's, Lothbury

St. Philip Magnus, London Bridge

St. Dunstan's-in-the-East

# As He Is Known, Being Brief Sketches of Contemporary Members of the Architectural Profession.



THOMAS C. YOUNG.

TO sketch the life of Thomas Crane Young is indeed to sketch an outline of the architectural development of the Middle West during the last two decades.

Born at Sheboygan, Wis., in 1858, his early education was obtained at the Grand Rapids High School, where he graduated; after which he studied for one year at the Art Academy in Cincinnati. Coming to St. Louis as a student of the St. Louis School of Fine Arts, Mr. Young entered upon a field in whose future development he was destined to play an important role.

Upon completing his studies at the Art School, four years were spent in the offices of E. M. Wheelwright, and of Ware & Van Brunt of Boston; and two more years in European travel, including work at l'École des Beaux Arts and the University of Heidelberg. In 1885, he returned to St. Louis to form a partnership with William S. Eames, under the firm name of Eames & Young. This partnership continued until 1914, when the firm was incorporated under the old name, with Mr. Young as president.

It would scarcely be possible to over-estimate the influence that the firm of Eames & Young has had upon the architecture of St. Louis. Although starting when the wave of Richardson was at its height, Mr. Young was ever sensitive to the moods of the day and when the time came reluctantly gave up the Romanesque to embrace the Classic, working either in the Italian, French, or Roman style. The large and important work that has come from the office of Eames & Young, includes a long list of many of the largest and most important buildings in the United States. To mention only a few: the Federal Prison at Leavenworth, Kan.; the Customs House in San Francisco; the Educational Building at the Louisiana Purchase Exposition, and the Boatman's Bank Building in St. Louis, are sufficient to recall the wide field that this firm has covered. In all of the work, from the largest to the smallest building, the hand of a versatile designer and a serious student of the Classic, is strongly evident.

By nature ever reserved and composed, never stooping to gain passing popularity, Mr. Young has been a prominent and outspoken factor in every question pertaining to art and civic development in his adopted city. He has been a leading and faithful member of the local Chapter, where his advice has ever been valued; and though still in the prime of life he can already look back upon a career full of wonderful activity and success. — *G. S.*

WILLIAM A. BORING.

IN the early years of the writer's connection with Columbia University there came to the school of architecture a young man from California — our first student from the Pacific Coast — who, though he only remained with us a year, both made and received a lasting impression. He was not only the oldest of our students, being at that time (1866) twenty-seven years of age, but by far the maturest in mind and experience. He had already had a remarkably successful practice in Los Angeles, designing large and important hotels, university buildings, and public edifices, following a two years' course in the University of Illinois, and his broad-minded intellectual alertness, and keen, clear way of working delighted Professor Ware, who was the head of the school at that time. After three years in Paris and several months in the inspiring office of McKim, Mead and White, he entered into partnership with Mr. E. L. Tilton in 1890. The reputation of the firm of Boring & Tilton for sound, thoroughly-studied and artistic design is too widely known to need more than brief mention. Their work includes such important groups and buildings as the Immigrant Station at Ellis Island, the entire lay-out of Bogalusa, La., the Jacob Tome Institute group at Port Deposit, Md., St. Agatha's School in New York, and many schools, hospitals, clubs, and large houses, besides the usual run of minor work.

But the office routine did not absorb all of Mr. Boring's energies. From my first acquaintance with him I noted a quiet, clear-headed efficiency, a habit of straight thinking and positive convictions, which marked him as destined for great usefulness in civic and professional organizations. Moreover, the suavity and geniality of his temperament and his sympathetic breadth of view, have made him *persona gratissima* in many circles. He was the organizer and first president of the Beaux Arts Society, and has served as president of the New York Architectural League, Vice-President of the American Institute of Architects, Secretary and now treasurer of the American Academy at Rome and member of the Municipal Art Commission of New York and of the National Commission of Fine Arts. He is an Associate of the National Academy of Design. A thinker, a reasoner in art, as well as a capital fellow, he has been called now to serve the Columbia School of Architecture as Associate in charge of Design. The staff of the school thereby gains a congenial colleague and the students a "guide, philosopher, and friend." — *A. D. F. H.*

WALTER R. B. WILLCOX.

THE life of Walter R. B. Willcox presents an example of a personality led by an innate force toward its most congenial and effective field of activity, enlisting therein for devoted service all subsequent efforts. Well established in a business career, he forsook it for the uncertain life of an architect and began at the bottom of the ladder in an architect's office in Boston, solving with unfamiliar drawing implements the mysteries of the orders, eager to grasp every phase of architectural art. His age, with like unimportant details, deserves no mention; it is sufficient to say that he brought to architecture unimpaired enthusiasm and devotion which have constantly been with him. Beginning with the rudiments in the Boston office, he continued his studies in the School of Architecture of the University of Pennsylvania. A visit to Burlington, Vt., disclosing an attractive field, he began there an active practice; residences, schoolhouses, university buildings, hospitals, and commercial structures throughout that section of the country, several won in competition, marked the extent and character of his work.

By nature devoted to the highest ideals of his profession, it was natural that he should early affiliate himself with the American Institute of Architects, and in 1907 was enrolled as a member. With difficulties largely overcome and a secure position gained, an attractive home, reflecting as did also his business quarters, his own architectural tastes, it might have been supposed that his goal had been reached. This was not to know the man. The same quality that impelled him toward architecture made him now seek a wider field for his efforts where he perhaps could have what he so much desired, more association with his fellow workers. Terminating his business in the East, he made a tour abroad; then, with an earlier associate, Mr. William J. Sayward, he began, unheralded and unknown, a new practice in Seattle, Washington. In this field he displayed his customary energy in professional and also in public affairs. He was active in the establishment of the Seattle Architectural Club and served devotedly the Washington State Chapter of the American Institute of Architects as its secretary and president. Sensitive to the high importance of a city plan, he became its earnest advocate and was active in securing for the city a Municipal Plan Commission. As a member of this Commission, representing his Chapter of the Institute, he became the Commission's architectural vital force and the right hand man of the distinguished engineer employed as expert. Mr. Willcox became a Fellow of the Institute in 1910; has served on important committees, and in 1913 was elected to the Board of Directors.

A striving to realize the highest ideals of his profession and of community life, freedom from restricting precedent in design, with admiration for the best that had gone before, these may characterize the most significant traits of his life and work. — *C. H. A.*

WILLIAM EMERSON.

MR. EMERSON once told me that when his father was casting about for the best method of fitting his son for the profession of architecture, he sought the good offices and counsel of his friend, the late Professor Ware. "What should an architect know?" was his straightforward inquiry. "More than any one else about everything," was the equally straightforward reply. Not too terrifying, perhaps, for the brother of a great American philosopher and man of letters, but the genial professor promptly resolved his great truth into something compassable within a lifetime and a little more promising of an eventual practice.

Of course Mr. Emerson would be the first to admit his failure to attain the happy (?) state prescribed by Professor Ware. He probably would not even be willing to admit that he knew as much about any one thing as did someone else (he is far too modest), but I think that a number of his friends would immediately protest that it would not be easy to excel him in the use of brick, for which simple, ancient, and honest material he has a great affection and appreciation. (It is, of course, a pleasure to record such a fact in THE BRICKBVILDER.) Its variation of texture, color, and bond appeal to him and his mastery of the material is shown in many city dwellings and tenements, and in a recently completed public bath for the city of New York.

He has also just completed the North River Homes, in New York City. To this undertaking he has brought much patient study and a keen sympathy with the effort to improve the housing conditions in our large cities. The result of his labors will contribute greatly to the betterment of the living conditions of low salaried workers, while other housing problems which are already engaging his attention will add largely to the knowledge of this important subject.

He was graduated from Harvard University, with honors, in 1895. Then to Columbia University for two years under Professor Ware and so to the Beaux Arts, which he entered in 1898, and where he remained, with one absence, until 1901. Returning to New York City, he entered the office of William B. Tubby, and later, that of York and Sawyer. For six months he was chief designer for the Board of Education of New York City, finally entering business for himself in 1905.

To the profession of architecture he is a loyal and devoted servant, giving of himself with a generosity and an enthusiasm which seem to flow from inexhaustible sources. The Society of Beaux Arts Architects counts him as one of its most active workers. For two years he was Chairman of the Committee on Education and was later Chairman of the Paris Prize Committee. The New York Chapter and the Institute are both the richer for his labors. No task seems too large or too small to enlist his effort to set a higher standard. Happy the profession which can claim such practitioners. — *C. H. W.*

## PLATE DESCRIPTION.

House of S. W. Labrot, Esq., Annapolis, Md., Plates 121–123. This house has a very interesting plan in its modern adaptation of a scheme quite common in the Colonial Manor Houses. Many of the old houses had a central building with two small flanking wings connected by a narrow corridor, one of these being used as an "office" and the other as a guest house. While this general scheme has been used there has of course been a change of requirements.

The walls are of very dark red brick with white trimmings, and the roof is of slate. The interior woodwork is of delicate Colonial detail and is finished in mahogany and white. The construction is fireproof, all the floors being concrete. In the service quarters glazed brick has been used to face the walls.

Houses at Guilford, Baltimore, Md., Plates 124–125. The remaining plates of this issue are devoted to the recent work at Guilford, near Baltimore, Md. Guilford is the later development in that very interesting suburban scheme which the Roland Park Company has been carrying out during the past few years. Roland Park was the first district to be opened and has grown into a beautiful suburb famous for its interesting streets and the architectural merit of its individual houses. These results were attained largely by restrictions included in the deeds and by very close supervision over all plans for proposed buildings. The deeds for sale, from the beginning, had provisions which reserved to the company the right to approve or reject plans for the houses to be erected; and it is interesting to note that as new tracts have been opened, the demand from the community has been not for less restrictions but for more detailed and comprehensive ones. None has realized the advantages of the scheme more thoroughly than those living in the development and enjoying its privileges.

The success of the scheme, both esthetically and commercially, has been so marked that the company a few years ago bought the large estate of Guilford adjoining Roland Park and has developed it along lines similar to the earlier work.

The architectural department of the company is headed by Mr. Edward L. Palmer and while a great deal of the work has been done under his direction, yet a large proportion has been done by Baltimore architects not connected with the company in any way. This arrangement has tended to give a certain variety of expression without disturbing the unity, for each designer has been careful to avoid any bizarre note which would be out of harmony with the surrounding work.

The Two Houses by Howard Sill, Plates 124–126, are very similar in construction and in the materials used. They are both built of Colonial brick; the joints were struck and then slightly cut at top, a treatment between the roughly struck joints and those more elaborately treated. The bricks vary in color so that when seen in the wall they have a tone closely approaching that of old work.

The interior woodwork in each is yellow poplar finished in old ivory enamel; the doors are of mahogany with small brass knobs. The service portions are of yellow pine with waterproof varnish. The cost of the house for Mrs. C. L. Applegarth was about 27½ cents a cubic foot, while the cost of the "House at Guilford" was approximately 32½ cents a cubic foot. These figures do not include grading or sidewalks, but do include the architect's fees.

The Group on Bretton Place, Plates 127–131, was designed primarily as an architectural spot at this particular point which is one of the entrances to Guilford. The group consists of seventeen houses, built under three separate roofs. They are of brick with brick party walls isolating each house; the roofs are slate. To offer certain spots of relief some half timber work with brick fill has been introduced and also some simple brick patterns in other places. The brick is rather rough in texture and varying in color, and is laid in a simple "struck" joint. The woodwork is of oak, and was covered with a light coat of stain containing bitumen, giving a soft brown color which has weathered nicely.

The cubic cost of the houses, exclusive of grading and street developments, was about 19 cents. They are small but are well finished and are well provided with plumbing conveniences and arrangements for cooking.

In the planning of the group careful consideration was given to the vistas which would be opened as one looked into the group. Some interesting feature, such as a gable or a doorway, has been placed approximately on the axis of each approaching street. To assist the effect further, gate posts were placed on either side of the street in order to give depth of perspective and something of a frame to the picture. Considerable care also was given to the roofs and chimneys; the long, unbroken roofs giving considerable scale and making the whole group count for a good deal when seen from a distance.

The House for James McEvoy, Esq., Plates 132, 133, is of brick with limestone cornice and front entrance. The roof is green slate. The living room is paneled in gumwood with the fireplace trimmed in verde antique marble. The hall, dining-room, and reception room are paneled. The heat is by a vapor system with concealed radiation. The cost of the house was about 26 cents a cubic foot.

The "House at Guilford," Plate 134, by Joseph Evans Sperry has solid brick walls and is trimmed with marble. The entrance motive is wood. The roof is of Spanish tile, the overhang being supported by wooden brackets which rest on marble corbels.

The House for James C. Fenhagen, Esq., Plate 135, is on a lot adjoining the house for John E. Semmes, Jr., and the construction of both is similar. The exterior walls and the interior bearing walls are of hollow tile. The facing brick is red with a wide variation in color; the cornice and string course are of brick. The roof is green slate and the trim is all painted a brownish ivory color.

The interior finish is poplar painted white and is very simple. The cost, including all heating and plumbing, and the rough grading and brick walks and steps, was about 25 cents per cubic foot.

# EDITORIAL COMMENT AND NOTES FOR THE MONTH

THE relation in an architect's practice which the two elements, construction and design, shall bear to one another has always been somewhat confusing. It has not been an infrequent occurrence to find men who were extremely clever at designing, and yet who could not carry out their designs without the greatest assistance from others specializing in construction. While the scheme of our business life to-day requires a certain amount of specialization in any work, it is unfortunate if this specialization in architecture is carried to the extreme of ignorance of allied subjects, — the designer knowing only how to design.

Such narrowness must work against the development of sound architectural forms and motives. Steel, to name the modern material of the widest use, has created opportunities for great originality in design, but what designer can make the most of these opportunities if he doesn't know the material, its strength, and peculiarities? Such a one must continue the use of old forms in a manner that is now illogical.

A better knowledge of structural material than is now possessed by the average will also increase the opportunities for architectural design. It is most unfortunate that subjects which are crying out for esthetic handling, subjects such as bridges, factories, and warehouses, are so often handled by engineers alone. In this way many latent possibilities where our everyday surroundings might be improved are totally lost. These problems are not confided to the architect, largely because the public's opinion of him and of his ability to handle them is not very high. It, therefore, behooves the profession to correct this condition and bring within the scope of its work these problems now largely given to the engineer.

While architecture has been defined as "the art of building beautifully," it ought to be amplified by the phrase "and constructing soundly," for though the esthetic effect resulting from a design is of great importance the client is interested primarily in the actual structure, and its permanence and soundness will be the most important considerations to him. And, from a business point of view, the pleasing of the client is an important factor in a practice. The architect is employed not merely to prepare drawings (except in very unusual cases), but he is to produce a building of a thoroughly sound character and, unfortunately, in many cases the necessary knowledge is lacking. Of course, on large work consulting engineers may be called in to work in conjunction with the architect; but even then the best results cannot be obtained unless the latter can grasp the engineer's point of view and discuss with him the problems that arise.

In the smaller work very often the special structural knowledge is supplied by the manufacturers of building materials, and here again the result cannot be the best unless the architect possesses enough knowledge to check the work. Otherwise he is unable to know whether too much or too little material has been used; there may be a gross and expensive waste or the amount used may be dangerously small. Yet the responsibility of the result lies with the architect.

To be sure it cannot be expected that the architect shall have the special education that is necessary for great engineering feats. The variety of subjects his profession requires him to understand and the scope of his activities preclude any highly cultivated knowledge along that special line.

Perhaps the most nearly ideal substitute for the architect-engineer is a partnership including an architectural engineer. With this scheme the constant contact with the work of the office will result in a sympathy and understanding of purpose which is essential to the best solution of problems, and which is not possible when outside assistance is called upon for special cases. However, such a specialized partnership is not practicable in the small practice and so we again face the fact that the architect should have a better knowledge of building construction than is generally the case to-day.

When it is clearly understood that the construction of all classes of building lies within the sphere of architects, and must be taken up by them instead of being relegated to others, we will not confront reactions in state laws making toward the supervision of architecture by engineers.

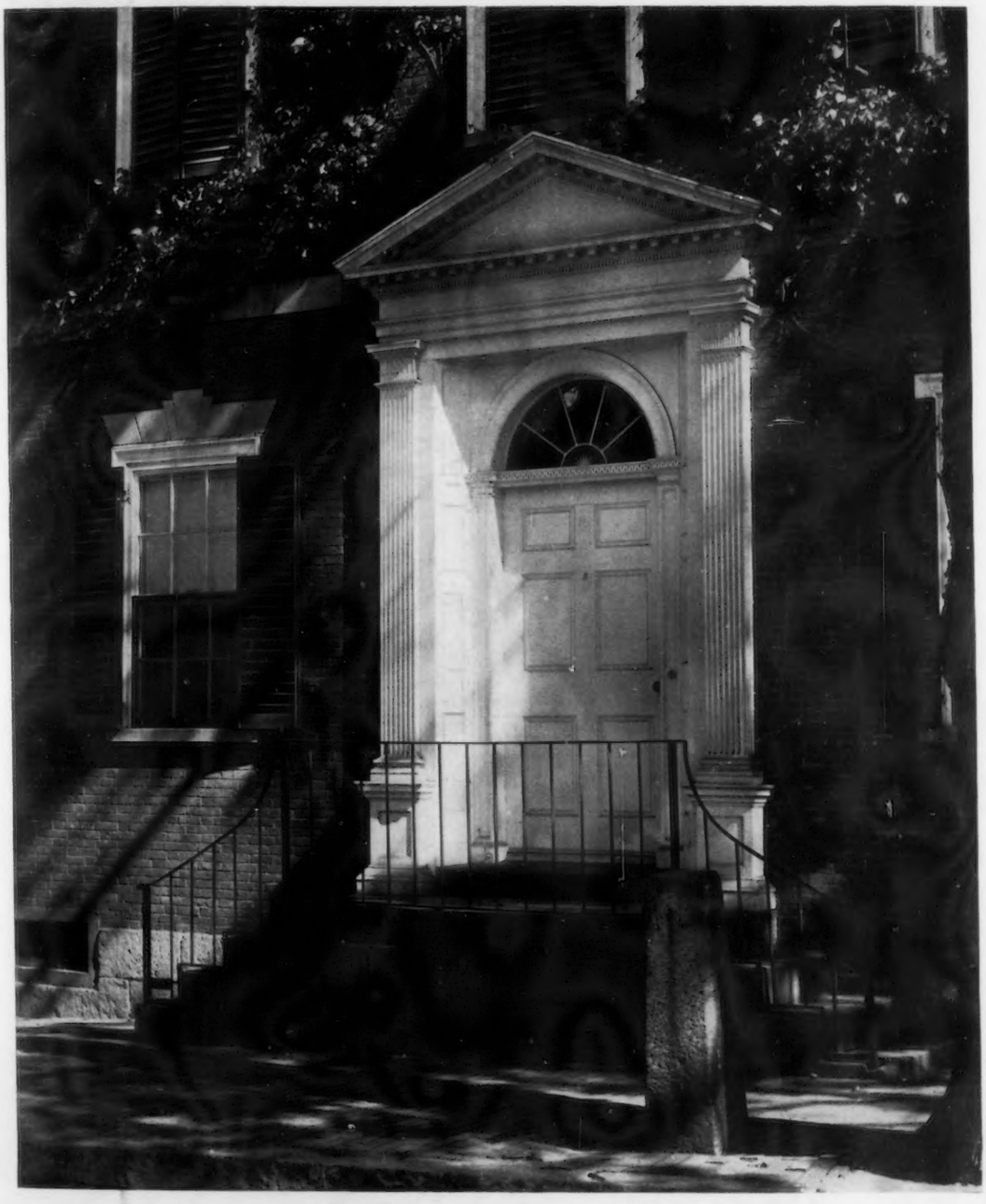
THE Fourth National Housing Conference is to be held in Minneapolis on October 6–9. The program includes more than usual concerning practical matters relating to the subject of dwellings and should be of interest to a large number of architects. There are to be papers and discussions by city officials, lawyers, and real estate men as well as by architects prominent in city planning, landscape architecture, and the planning of houses.

One of the most interesting days for the architect will be the 9th, when the Housing Institute will be held. The question to be dealt with chiefly is the practicability of developing garden suburbs in America for wage earners, including types of small houses for workmen, construction and maintenance, and management, both financial and social. Minneapolis, while being with its lakes and gardens a very beautiful city, has been shown by housing investigations to have every type of housing evil known to older and larger cities, and delegates should find these problems thoroughly typical of the average American city. A feature of the conference will be an exhibition showing what has been done in various cities toward developing a modern dwelling.

Copies of the proceedings of the Conference, as well as pamphlets issued during the year, will be sent free to all members of the National Housing Association, of which the annual membership fee is $5.00.

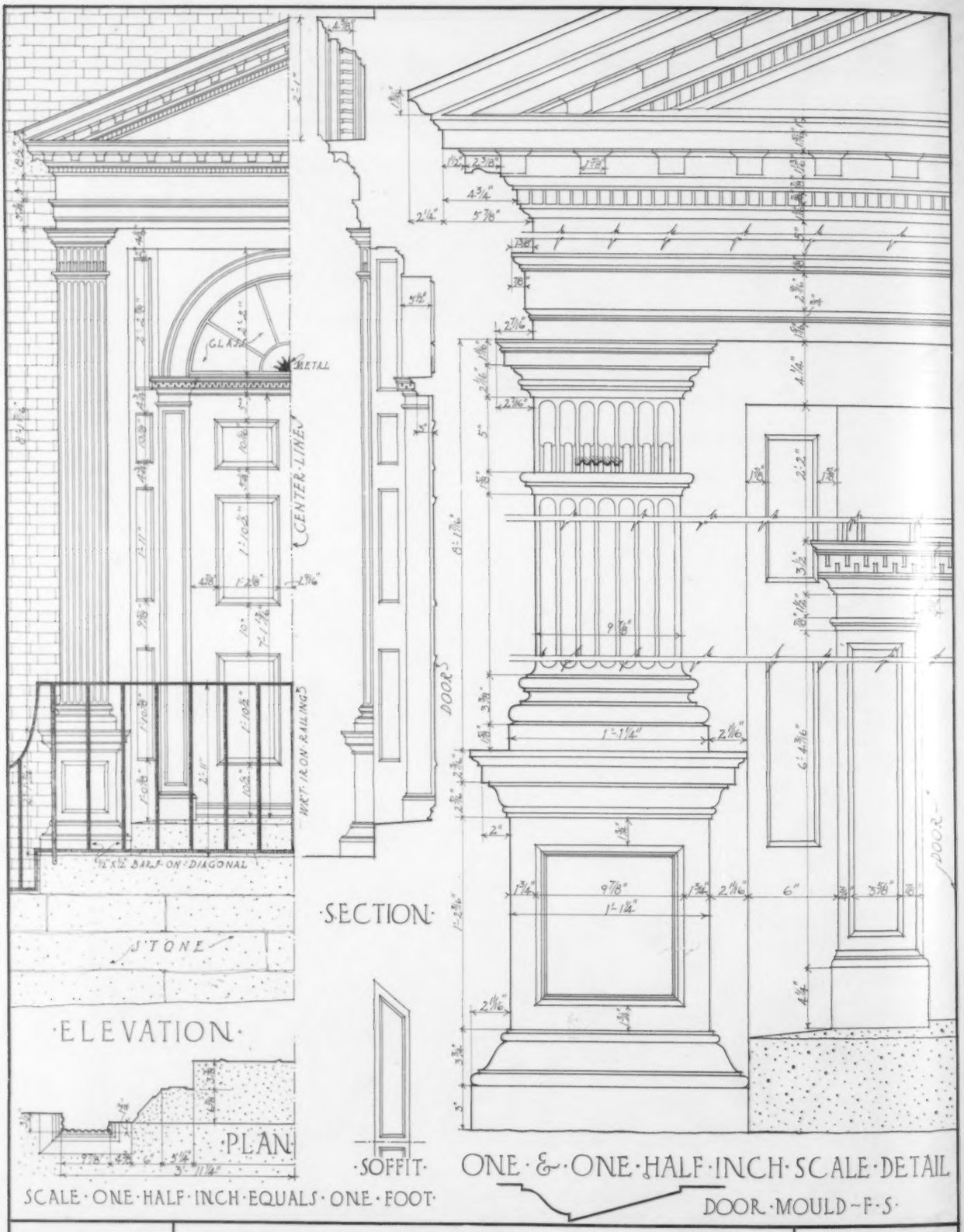
THE BRICKBVILDER COLLECTION

# EARLY AMERICAN ARCHITECTURAL DETAILS



DOORWAY, BARTLET-ATKINSON HOUSE, NEWBURYPORT, MASS.
BUILT IN 1805

MEASURED AND DRAWN BY GORDON ROBB




SCALE · ONE · HALF · INCH · EQUALS · ONE · FOOT ·

| | | |
|---|---|---|
| PLATE · 10 · OCTOBER · 1915 · | DOORWAY · BARTLET - ATKINSON · HOUSE<br>NEWBURYPORT - MASS<br>· BUILT · IN · 1805 · | · MEASURED · & · DRAWN · BY · GORDON · ROBB · |

DOORWAY OF SMALL PALACE, AVILA, SPAIN
ERECTED IN THE XVITH CENTURY